



JOURNAL  
OF  
A VOYAGE IN 1775.

To explore the coast of America, Northward of California,

By the second Pilot of the Fleet, Don FRANCISCO  
ANTONIO MAURELLE, in the King's Schooner,  
called the Sonora, and commanded by Don  
JUAN FRANCISCO DE LA BODEGA.

JOURNAL

OF

A VOYAGE IN 1775

To explore the coast of America Northwest of California

By the second visit of the Fleet, Don Francisco  
Antonio Martinez, in the King's Schooner,  
called the Solon, and commanded by Don  
Juan Francisco de la Bodega

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P R E F A C E.

**T**HE following journal having been placed in my hands for perusal, I conceived it to be so interesting for the improvement of Geography, that I desired permission to translate and publish it.

I was principally induced to take this trouble, because I supposed, that the Spaniards, from their most peculiar jealousy with regard to their American dominions\*, would never permit that navigators of other countries (particularly the English) should know the excellent ports of the Western part of America in high Northern Latitudes, which are here laid down with such accuracy and precision, together with the abundant supply of masts, fire wood, and water which may be procured in most of them.

\* That most able Historian Dr. Robertson, after having mentioned, that most of the American papers are deposited in the Archivo of Simanca, near Valladolid, thus proceeds :

“ The prospect of such a treasure excited my most ardent curiosity ;  
“ but the prospect of it only is all that I have enjoyed. Spain, with  
“ an excess of caution, hath uniformly thrown a veil over her trans-  
“ actions in America : from strangers they are concealed with peculiar  
“ solicitude.” Preface to the History of America, p. ix.

\* O o o 4

It

It appears, by Venegas's History of California, published in 1747<sup>b</sup>, that great jealousy was then entertained of our discovering a N. W. passage<sup>c</sup>, because they apprehended we should annoy the coasts of Mexico and Peru.

Nothing however can be more groundless than these suspicions, for whenever a N. W. or any other Northern communication is found between the Atlantic and Pacific Oceans, it may be boldly pronounced that such passage will be so very precarious, as never to answer the purpose of expeditions in time of war, or commerce during peace.

The Spaniards should, after our late voyages of discovery (which reflect so much honour upon his Majesty's reign), be convinced that the English Nation is actuated merely by desiring to know as much as possible with regard to the planet which we inhabit, and to which our geographical inquiries are necessarily bounded.

This distrust on the part of Spain would more wisely be directed against the Russians, who from Camskatka might easily establish themselves on the W. coast of America, and from thence perhaps in time shake their unwieldy, and already tottering empire<sup>d</sup>.

From these ill-founded apprehensions of what the English may meditate against their American Dominions on the Western coast of that vast continent, they will not permit an individual,

<sup>b</sup> Madrid, 3 vol. Quarto.

<sup>c</sup> Igualmente notorias son las *ruidosas, y porfiadas* tentativas de los *Inglefes*, para hallar un passage al mar del *Sur*, por el *Norte de America*. Ibid. T. III. p. 225.

<sup>d</sup> I am accordingly informed, that the Empress means to fit out four vessels on the coast of Camskatka, which are to be employed in discoveries, during the proper season of 1781.

even of our nation, to set his foot in their part of America, even for scientific purposes\*.

Notwithstanding this perpetual distrust of this country in the Spaniards, and our present war with them, I will venture to say, that an attack upon the city or province of Mexico, would not be advisable on our part. If the Spaniards indeed acted wisely, they should themselves abandon it, for the mines

\* The transaction I here allude to is the following. Lord Morton, as President of the Royal Society, applied to the then Spanish ambassador at our Court in 1766, for leave that an English Astronomer might observe the Transit of Venus (expected in 1769) on some part of California. This was however refused, when his Lordship requested, that Father Boscowich, a *foreigner* and *good Catholic*, might have the same permission; in which he was at first more successful, but the favour was even then granted with many clogs, and the permission at last recalled, on account of his being a Jesuit, who were at that time banished from Old and New Spain.

At the same time Chappe Dauteroche obtained this permission, and for the same purpose; the consequence of which hath been, that a draft of the city of Mexico, in its present state, was found amongst his papers, and published by his Catholic Majesty's good allies, the French, for the information of his enemies.

I once applied myself to the late Prince Masserano (so deservedly esteemed whilst resident as Minister of Spain in England) that an ingenious German, named Kukahn\*, might be permitted, under any restrictions, to go from La Vera Cruz, to any part of the province of Mexico, merely to collect specimens of Natural History. I was also responsible that he never would attend to any thing, during his journies, but the animals he might meet with. Though I made this application by a channel which his excellency would have been desirous to oblige, yet he excused himself, from its being a fundamental rule with the Court of Spain, that no foreigner be permitted to pass through any part of their dominions on the continent of America.

\* See an account of his method of preserving animals, and placing them in their proper attitudes. (Ph. Trans.) He is now established in Jamaica, and hath succeeded in raising many European fruits, as also products of our kitchen-gardens, in some ground which he hath purchased, about half way up a mountain.

\* O o o 5

within

within any convenient distance are nearly exhausted, whilst the charge of bringing quicksilver from La Vera Cruz is thereby greatly augmented. Venegas therefore informs us, that it is not worth while to work the more abundant mines of Sonora to the Northward, from this increase of expence. The silver indeed, at so distant a period as 150 years ago, was chiefly brought from St. Lewis de Sacatecas, which is nearly 100 leagues N. of Mexico. This objection does not hold with regard to the continuing to work the silver mines of Peru, as the famous one of quicksilver, called *Guanacabelica*, is situated in the same province. It is believed also, that the *gold mines* in America, as they are improperly called, answer as little to the Spaniards. At least I have been informed, by a person who resided two or three years in Brasil, which furnishes the greatest quantity of this precious metal, that those who go in search of it are not paid above a shilling per day for their labours. Gold is never found in the state of ore, or by digging deep into the bowels of the earth; the adventurers therefore go in companies of five or six to explore those parts where they conceive themselves to have the best chance of finding it near the surface, but often return after being out months, with a very small portion, by which the fatigues and dangers they have incurred are poorly compensated.

As little would it answer to take possession of Acapulco, for the sake of an annual ship which would presently change its rendezvous for another port, or of Panama, in order to inter-

<sup>†</sup> To this it may be added, that the situation of Mexico is very unhealthy, *Gage* comparing the many canals to those of Venice, which are often highly offensive. [See *Gage's Survey of the W. Indies.*] It is also subject to great inundations; and Don Alzate informs the Academy of Sciences at Paris, that during the years 1736 and 1768 more than one-third of the inhabitants died of the black vomit.

cept



cept the flotilla, which by late regulations is never to touch there †.

The Spaniards moreover should learn from what England hath suffered by conquering Canada for our ungrateful colonies, that the settlement of a rival nation to the Northward of Mexico, would possibly operate in favour of the mother country.

We have experienced this most unnatural rebellion within a few years after we had removed the dread of the French in Canada from them, and after every fostering indulgence on our part. What may the Spaniards therefore have occasion to dread from their vast American Empire, the inhabitants of which they are perpetually oppressing with their enormous duties and taxes?

Thus much have I ventured to say in hopes that the court of Spain will rather promote, than obstruct, any future voyage of discovery, in the Northern parts of the Pacific Ocean.

I am sorry that I have not an opportunity of engraving with this journal the nine charts which should accompany it; but as the Latitudes and Longitudes of the new Discoveries on the coast of America are so accurately stated, I should hope that the publication will at least convince the Spaniards how little it will answer the purpose of mystery to withhold them.

It appears by this journal that the Viceroy of Mexico sent some other ships on discovery to the Northward in a preceding year, and

† The silver from Peru and Chili is either now sent over part of the Andes to Buenos Ayres, or otherwise transmitted in single register ships round Cape Horn. The establishment of Galeons sailing in a fleet from Cadiz being now also abolished, Carthagena, Porto Bello, and Panama, are become more than useless to the Spaniards, as the climates are bad, whilst the civil and military establishment at each is very expensive.

that.



that they proceeded to N. Lat. 55. Don Juan Peres, who was *ensign*<sup>h</sup> on board the Frigate in the present voyage, had some station in the former, and carried with him a chart of the coast, in many of the parts which were then explored.

I am sorry not to be able to state any further particulars, but think it right to mention thus much, in hopes that it may produce some account of this former voyage.

I should conceive, that both the one and the other were produced by our attempts to discover a N. W. Passage; because it will be found, that wherever the Spaniards landed they were instructed to take possession (though not to keep it) with every possible formality, which undoubtedly was to be set up as a complete title against future claimants, by right of discovery.

The compiler of the present journal, D. Antonio Maurelle, served on board the schooner employed on this voyage (together with a frigate) under the title of Second Pilot of the Fleet<sup>i</sup>.

In one of the written opinions which he gave whilst thus employed, he states, that he had served ten years in the Bay of Biscay<sup>k</sup>, and seems to have been a most diligent navigator; whilst, to his honour, he always advises the proceeding to as high a Northern Latitude as possible, though some of his brother officers almost despair.

At the close of the journal a very accurate table is given of the ship's course for each day, with no less than nine columns.

Having however consulted some most experienced and able sea-officers on this occasion, they have advised me only to print

<sup>h</sup> *Alferes*.

<sup>i</sup> I understand that we have no rank in our marine service which answers at all to this.

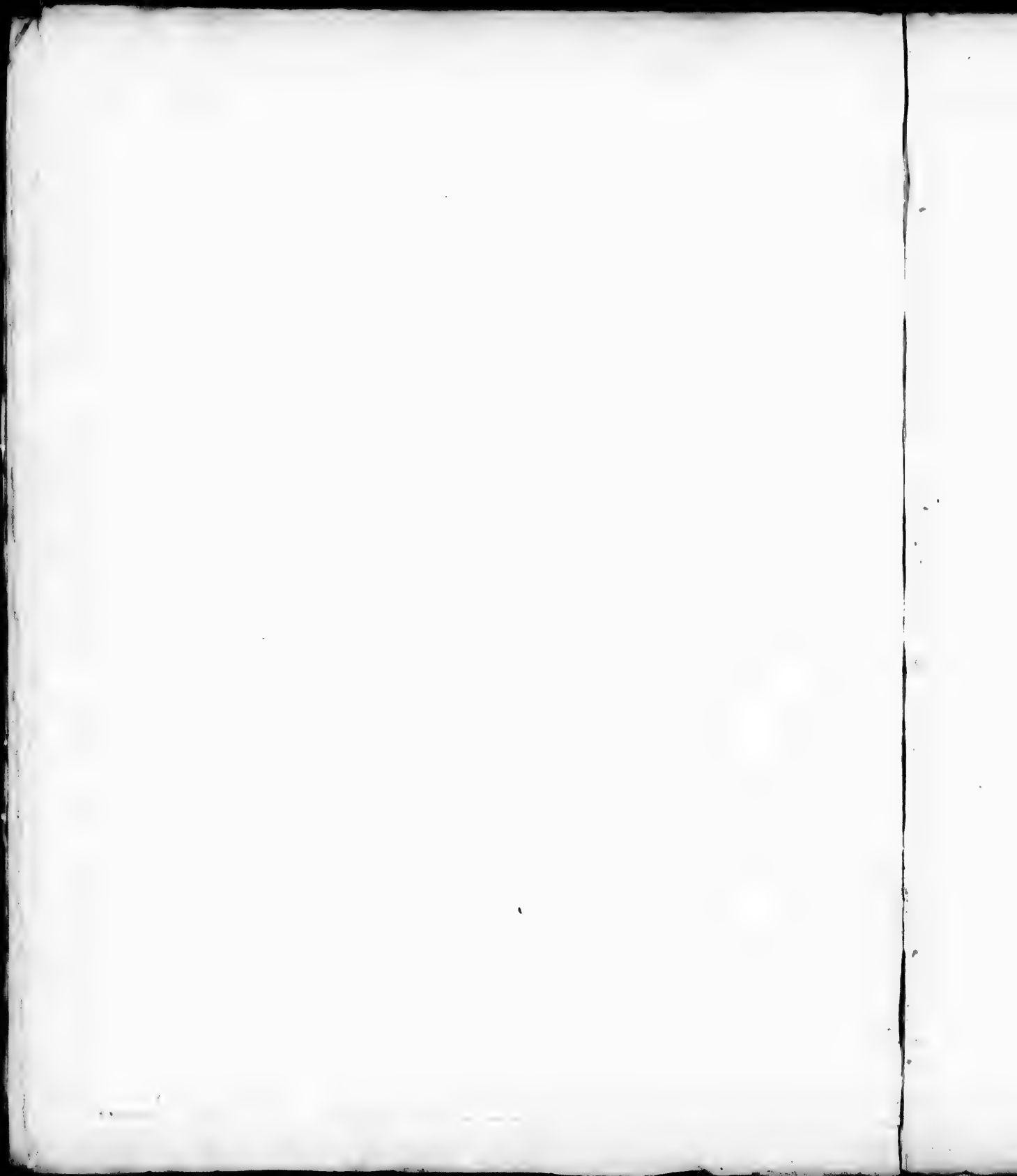
<sup>k</sup> The expression in the original is *Golfo de las Yeguas*, or the Gulf of Mares. The Spaniards also call the gulf of Mexico *Golfo de las Ciervas*, or Gulf of Does.

a few of these heads<sup>1</sup>, as some of them would not be easily understood by any navigator, who is not a Spaniard.

Upon the whole, it is hoped, that this account of an eight months navigation on the unfrequented coast of America, will prove a valuable addition to geography; especially as our immortal Captain Cook had so few opportunities of examining most parts of the same continent to the Westward<sup>m</sup>, though his discoveries to the Northward will prove so interesting.

<sup>1</sup> It is right also to observe, that (though I give the column which states the Variation of the Needle) it is not specified whether the Variation is West or East; I should rather indeed suppose it to be the latter, on the authority of Dr. Halley, though perhaps the direction may have altered since the last century. This doubt however will be settled when Capt. Cook's last voyage is published.

<sup>m</sup> This is said to have been occasioned by unfavourable winds.



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PREFACE OF DON ANTONIO MAURELLE.

FOR the better understanding this Journal, it will be proper to premise the following particulars.

The charts which we used during the voyage were those of Monf. Bellin, the one published in 1766, and the other in 17—; the first of which places the port of St. Blas, 110 degrees W. Long. from Paris, and the second 114, differing consequently 4 degrees. For this reason I have always reckoned the Western Longitude from St. Blas\*, and not from Paris.

At the end there is an accurate table, every page of which includes a month, with an account of the Ship's course each day, together with the number of leagues sailed, the longitude, latitude, variation of the needle (which last, when attended to, is marked with an asterisk), and the distance from the nearest land.

\* San Blas is a very small hamlet, on the W. coast of the province of Mexico, at the mouth of the River S. Pedro. It is but within these few years that the Spaniards have made a settlement there, for the convenience of transporting the troops and provisions they send to California. Dr. Robertson's map places it about the 22d degree of N. Lat. and 88th W. Long. from Ferro. See also Chappe D'Auteroche's account of his journey from La Vera Cruz to S. Blas in 1769. The Latitude of this port is not settled by this Journal, nor Longitude except by reference.

The plans of the ports which have been discovered, follow these tables, as also a chart of the whole coast, drawn with the greatest accuracy, as we always marked the most distinguishable points. In order also that we might be more exact, we compared the ship's course with that of the coast, and repeated our observations, both in sailing Northwards, and returning to the South.

We likewise have omitted every longitude, in which we conceived there had been mistakes, by accidents that had happened, and when we only doubted in distances of no great moment, we have laid them down, making the proper allowances.

The latitudes of the charts<sup>b</sup> are marked with the greatest precision, in those situations where it may be of the most use, having had sufficient time to make the proper observations, whilst the allowances for refraction were attended to.

<sup>b</sup> These charts unfortunately did not accompany the Journal.

January, 1775.

**B**EING on board the King's storeship<sup>c</sup> the *Santa Rica*, which then lay in the port of Vera Cruz, I received on the 10th of that month an order from his Excellency the Viceroy<sup>d</sup> Don Antonio Maria de Bucarely and Orfua, to undertake the function of first pilot in the expedition, which was then fitting out at the port of St. Blas for discoveries on the Northern coast of California<sup>e</sup>.

As I have always had the strongest desire to serve his Majesty (be the risk what it may) I readily accepted this commission, and setting out from La Vera Cruz on the 12th of January, I reached Mexico on the 18th in order to receive his Excellency's further commands. I left Mexico again on the 16th of February, and arrived at the Port of St. Blas<sup>f</sup>, putting myself under the orders of the officer, who was to fit out the expedition, Don Bruno Heceta. The ships prepared for this purpose were a frigate and schooner<sup>g</sup>, the latter being 36 feet long<sup>h</sup>, 12 feet wide, and 8 deep, commanded by the Lieutenant Don Juan de Ayala, assisted by Don Juan Francisco de la Bodega, of the same

<sup>c</sup> Urca.

<sup>d</sup> Sc. of Mexico.

<sup>e</sup> It should seem from this journal, that the Spaniards deem all the N. W. coast of America beyond California to be part of that province.

<sup>f</sup> The journey from La Vera Cruz to Port S. Blas is supposed to be 300 leagues, thus divided: from La Vera Cruz to Mexico 110 leagues, and from the latter to S. Blas 190.

<sup>g</sup> Goleta.

<sup>h</sup> 18 codos, each codo being two feet.



rank, and I embarked in the schooner. It so happened that the packet-boat S. Carlos was at this time in the port of S. Blas, commanded by the Lieutenant D. Miguel Maurrique, who was to proceed to the establishment at Monterey<sup>1</sup>.

Whilst we continued here, we laid in provisions for a year's voyage; all of which were procured from the neighbourhood.

On the 16th of March we had taken on board all such necessities; and at 10 o'clock at night the three vessels set sail, steering N. W. with a gentle land-breeze at N. N. E. but though we did every thing in our power during the night to keep company with the other ships, we were not able, which we conceived to arise from the cargo not being properly stowed, because the schooner's reputed rate of sailing, by those who were well-acquainted with her, left us scarcely any doubt with regard to this being the real cause.

As soon as day appeared on the 17th it grew calm, and continued so till three in the afternoon; when a breeze from the N. W. arising, we steered N. N. E. and towards the coast, till sun-set, when the wind fell. At this time we cast anchor, and found ourselves 4 leagues N. N. E. of S. Blas, and in this manner we prosecuted our voyage, making use of the sea-breeze during the day, and the land-breeze during the night, gaining very little to windward<sup>2</sup>, and casting anchor when the wind fell, in order not to lose ground by the currents<sup>3</sup>, after so little progress, and with such trouble.

<sup>1</sup> The latitude of Monterey is settled afterwards by this journal to be in 36 44 N. Lat. and 120 W. Long. from St. Blas. It is situated on the Western coast of California, and a mission of Jesuits is there established.

<sup>2</sup> Barlovento.

<sup>3</sup> The currents are so strong in this sea that a promontory S. of S. Blas is called Corrientes.

On

On the 13th at three in the evening the S. Carlos Pacquet-boat made a signal for help, on which our captain sent a boat, in which Don Mignel Maurique (who commanded the Pacquet) was brought to our ship, when we plainly discovered, by his actions, that he was out of his senses. On this our principal officers accompanied him on board the frigate, that the captain might give the proper orders on this occasion, when a council being held, and the surgeons examined, as well as ocular proofs appearing of D. Maurique's madness, it was determined to set him on shore, as also to give the command of the packet-boat to Don Juan d'Ayla, lieutenant of the frigate, and that of the schooner to Don Juan Francisco de la Bodega and Quadra, who had the same rank.

On the 20th, the breeze being moderate, it was discovered that the foretop-sail<sup>m</sup> was rent in several places, which defect it was necessary to repair immediately.

Whilst the wind thus continued, the commander of the schooner tried many experiments, to make her sail better, one of which indeed rather improved her rate; but the frigate, notwithstanding, was still obliged to shorten sail, in order to keep us company, and indeed to take us in tow<sup>n</sup>.

On the 24th at noon we had sight of the Southernmost of the Marias\*, lying to the N. E. at the distance of three leagues, which makes the then situation of our ship exactly a degree W. of S. Blas, according to M. Belin's map of 1756, and in N. Lat. 21. 4. m. Now this differs from my observations, being 26 minutes too far Northwards.

<sup>m</sup> El mastelero de velacho.

\* In the original another experiment is stated, which I have not translated, as I conceive it would be uninteresting to the reader.

° There are three islands thus called.

Whilst we were in this situation we lost sight of the packet-boat, but we continued our course steering S. W.<sup>†</sup> when we observed many birds, some of which were black, with a white spot on their breast, the wings long, beak rather large, belly prominent, and tail like a pair of scissars<sup>‡</sup>; others again were entirely white; whilst some were grey, with a single large feather. We likewise saw other birds, which dived often under the water, named bobos.

During great part of March the wind freshened in the day, and fell at night, particularly a little before the new moon<sup>§</sup>, (which happened on the 29th,) after which we had often calms, the wind having before blown from the N. W. to the N. on this same day (viz. the 29th) we saw an island at sunset, which is said to be called Socorro<sup>¶</sup>, by which name it is not to be found in the French maps, nor in the History of California<sup>‡</sup>. We had a view of it whilst it lay to the Eastward at the distance of 9 or 10 leagues, which with difficulty we gained to windward<sup>¶</sup>, wishing to sail as nearly as possible upon the meridian of that island.

On the 30th we endeavoured to approach nearer to Socorro, when it lay W. N. W.<sup>\*</sup> at the distance of four leagues, but

<sup>†</sup> Sudocste quarta al oeste.

<sup>‡</sup> Tixera.

<sup>§</sup> Great attention to the moon, and its supposed effects on the weather, is to be observed in other parts of this journal.

<sup>¶</sup> This island, in Dr. Robertson's map, is placed in 19. N. Lat. and 94. W. Long. from Fero.

<sup>‡</sup> This is probably the history of that country published by Miguel Venegas (a Mexican Jesuit) at Madrid, in 1758, which was translated into English, and printed at London in 1759. It is not at all extraordinary however that this island should not be mentioned in that account, as Venegas chiefly describes the E. coast of California. Socorro is considerably to the South of that Peninsula.

<sup>¶</sup> Orzando.

<sup>\*</sup> Quarta al oeste.

we could not effect this on account of the currents to the S. which carried us to Leeward<sup>1</sup>.

From the 31st of March till the 4th of April we had either calms or light breezes, on which account we could not sail further from this island than we lost by the currents. For this reason also we tried by towing the schooner, and using of our oars, whether we might not make some part of the island, where we might procure water; but in this we could not succeed on account of the violent currents.

This island, which, as was said before, is not named Socorro in any maps, is undoubtedly that which was discovered by Hernando Triabba, who commanded a ship dispatched from Guantepeque, by Hernan Cortes, to explore the coast of California. This vessel sailed 300 leagues ——— and fell in with an island named St. Thomas, which is so called in the French maps, though erroneously placed, because its real latitude is  $18^{\circ} 53' N.$  Lat. and W. Long. from S. Blas  $5^{\circ} 18'$ .

On the 4th of April we lost sight of Socorro to the E. N. E. and prosecuted our voyage to windward as much as possible, without any other accident but the frigate's bowsprit being damaged, which we soon repaired.

At this time we found that the sky was not so clear as before, we approached Socorro, that the sun did not appear so frequently, that the mists were not so thick, that the wind was much more cold, and in short we experienced a very different temperature.

Till the 14th, when the full moon happened, the breezes were slight, and the currents always to the South, after this

<sup>1</sup> Sotavento.

<sup>2</sup> There is a chasm in the MS with regard to the direction in which she sailed.

however.

however the wind freshened to the N. N. E. sometimes flitting to the N. E. and blowing more strongly from that point. By these means we had an opportunity of trying the sailing capacity of the schooner, for the rougher the sea the more sail was set, so that the deck was constantly two planks\* under water to leeward; which thoroughly convinced those on board the frigate of our determined resolution to prosecute our voyage.

The crews of both ships, who observed what a press of sail was carried by the schooner, from the determined resolution of the officers to proceed as far Northward as possible, saw plainly that they were in some degree mistaken, by conceiving at our first departure that the schooner would be obliged to return to S. Blas in a fortnight. They however still shewed their apprehensions if she pursued her voyage, whilst some of the schooner's company began to sicken, and wish themselves on board the frigate, where there were medicines and a surgeon. The surgeon however declared, that if such seamen were removed to the frigate, they would be probably seized with a fever, on which the Captain thought it right that this opinion should be made known to the schooner's crew, as he supposed it would have a greater effect than the threats of any punishment. To say the truth, we could not but be sorry to observe the horror that the crew conceived of the bad condition of the schooner, which afforded miserable quarters for the sick, as the seamen could not do the business without being thoroughly wet, except when it was calm.

These distresses would have become insufferable, had not the commander behaved with the greatest kindness to the crew, he encouraged them to persist also, by giving them frequently small

\* Tablas.

presents, and reminded them of the glory they would obtain on their return, if they reached the proper latitude<sup>b</sup>. He added also, that the risque was nearly equal<sup>c</sup> to both vessels, and that as each ship's company valued their lives, they might be sure that it would not be attempted to proceed further than was consistent with their mutual safety. This interposition of the commander had at length the proper effect, and we agreed to live and dye together.

On the 11th of May the wind began to veer about, and on every point to the Eastward, but ended to the E. & S. E. with many squalls<sup>d</sup> and mists. The strong currents which we had before experienced to the S. were now scarcely to be perceived.

On the 21st our commander held a council, in which it was to be determined whether we should continue our voyage, or put into the establishment at Monterey, and that the resolutions we should come to might be the more deliberate, our opinions, with the reasons on which they were founded, were reduced to writing. As the wind however was very violent, there could be no personal communication between the officers of the two ships, and our opinions were therefore transmitted by means of a cask.

[These opinions follow, in the journal at length, but as they would not be very interesting even to the navigator, I shall only state that they all agree in advising that they should proceed as far N. as 43. rather than put into Monterey. The principal

<sup>b</sup> It appears afterwards that they were instructed to proceed as far N. as 65 if practicable.

<sup>c</sup> It must be recollected that at this time the frigate towed the schooner.

<sup>d</sup> Chuvascos, which is supposed to be a term used in the Mexican Seas.

reason for this advice is, that Martin de Aguilar had discovered a river in this latitude, where they hoped consequently to water, and repair their vessels\*.]

We proceeded on our voyage therefore with brisk winds from the N. & N. N. E. the sea running high till the 30th, when the new moon happened during which interval we made many tacks, and did not accurately observe our longitude or latitude.

On this same day we had gentle breezes between N. W. & S. W. varying thus for the three following days, after which the wind was steady in the W. N. W. and blew fresher as the moon increased.

On the first of June one of our seamen was so drunk with spirits that we thought it right to remove him to the frigate†, where he afterwards died in less than six hours. On the same day we observed some sea-weeds, the top of which much resembled an orange‡, from the upper part of which hung large and broad leaves.

At the extremity of this plant is a very long tube, which fixes to the rocks on the coast till it is loosened by the sea, when it often floats to the distance of 100 leagues. We named this plant the *Orange-head*.

The next day we saw another plant, with long and narrow leaves like a ribband, which is called *Zacate del Mar*; we also saw many sea-wolves, ducks, and fish.

\* In the account of this voyage in 1601, added to Venegas's History of California, this river is said to have been discovered by the pilot Lopes, and not by Martin de Aguilar. In some maps it is placed in 45 N. Lat.

† Because there was a surgeon on board that ship, probably.

‡ Una naranja.

On



On the 5th our towing rope<sup>b</sup> was broke; which indeed had happened several times before, notwithstanding the greatest care of both ship's companies, on which accident we resolved to proceed, as well as we could, without this very inconvenient appendage.

On the 7th, from the colour of the sea, we judged ourselves to be in soundings, and we supposed ourselves to be about thirty leagues from the coast.

By noon on the same day we distinguished a large tract of the coast (though at a considerable distance) lying from the S. W. to the N. E. but we were not able to get nearer to it, by the winds falling calm during the night and the following day.

On the 8th we saw the coast much clearer at the distance of about 9 leagues, and the next 24 hours the currents to the S. increased strongly, so that there was a difference in the latitude by observation and our reckoning of 29 minutes.

The same day the wind freshening, the commander made signal for the schooner to reconnoitre the coast, which direction we complied with to our utmost, steering to the N. N. E. and hoping to do this before the night. In effect, by six in the evening, we distinguished many headlands, bays, plains, and mountains, with trees and green fields.

By eight at night we were not more than two leagues distant from the land, nor the frigate more than three; we then sailed towards her, and thus passed the night.

On the 9th at break of day the frigate made us a signal to join them, and by 10 in the morning we followed their course till we came to another part of the coast, where we saw, with the greatest clearness, the plains, rocks, bays, headlands, breakers,

<sup>b</sup> El remorque.

and trees : here we founded in 30 fathoms, the bottom being a black sand. At the same time we sailed along the coast, and endeavoured to find out a port, being at the distance only of a mile, and approaching to a high cape, which seemed to promise shelter, though we were obliged to proceed cautiously, as many small islands concealed from us some rocks, which scarcely appeared above the surface of the sea.

As we now perceived a land-locked harbour to the S. W. we determined to enter it, making at the same time a signal to the frigate to lend us an anchor, which however they were not able to do, from their distance, as well as that the wind blew fresh. For these reasons the schooner entered the port alone, founding all the way, with the greatest care, and the frigate followed in our wake.

Whilst we were thus entering the port, we observed two canoes from the N. which came close to the frigate, and exchanged their skins for bugles, and other trifles, with our seamen, whilst in the mean time the schooner cast anchor opposite to a little village\*, which was situated at the bottom of a mountain : the inhabitants however did not send out any canoes to us.

After this we founded the interior parts of the port, and we found sufficient depth of water to anchor at a bow's shot from the land, we saw likewise the frigate at the bottom of the port, and fastened our cables to some rocks which nature seemed to have fixed there for this purpose. We took however the precaution to let fall two anchors on the opposite side ; (viz. to the S. and S. W.) on which the frigate followed our example.

\* Rancheria.

As soon as we had anchored, some Indians in canoes came on board, who, without the least shyness, trucked some skins for bugles.

And here it may be right to observe the inaccuracies of the French map<sup>1</sup>, both with regard to the capes, and the lying of the coast. It should seem indeed that the absolute want of authentic materials hath been the occasion of laying down at random some large bays, which we neither found to the N. or to the S. as we must certainly have fallen in with them above Cape Fortuna, which is placed 18 leagues to the S. of Cape Mendocino<sup>m</sup>, whereas we were twenty leagues to the N. which makes an error of two degrees of latitude<sup>n</sup>.

On the 11th we had fixed every thing with regard to our anchorage, and we determined to take possession of the country, upon the top of a high mountain, which lyes at the entrance of the port. For this purpose our crews divided into different parties, which were properly posted, so that the rest might proceed without any danger of an attack. We moreover placed centinels at a considerable distance, to reconnoitre the paths used by the Indians, who possessed themselves of those parts from which we had most to fear. With these precautions the crews marched in two bodies, who adored the holy cross upon disembarking, and when at the top of the mountain formed a square, the centre of which became a chapel. Here the holy cross was again raised, mass celebrated, with a sermon, and possession taken, with all the requisites enjoined by our instructions. We also fired both

<sup>1</sup> Of Mons. Bellin.

<sup>m</sup> So called from Mendoza, a Viceroy of Mexico, who sent some ships on discovery. Most maps place this on the N. W. point of California.

<sup>n</sup> De ocho cavos.

our musquetry and cannon, which naturally made the Indians suppose we were irresistible. After they had recovered their fright however, and found that we had done them no harm, they visited us again, and probably to examine more nearly what had occasioned the tremendous noise which they had never heard before. As we thus took possession on the day when holy mother church celebrates the festival of the most holy Trinity, we named the port accordingly\*.

The following days were taken up in procuring wood and water, whilst the schooner was careened. We likewise cut some masts for her.

We could not but particularly attend to all the actions of the Indians, their manner of living, habitations, garments, food, government, laws, language, and arms, as also their <sup>p</sup> hunting and fisheries. The distrust indeed which we naturally entertained of these barbarians, made us endeavour to get as great an insight into all these as possible, yet we never observed any thing contrary to the most perfect friendship and confidence which they seemed to repose in us. I may add, that their intercourse with us was not only kind, but affectionate.

There houses were square, and built with large beams, the roofs being no higher than the surface of the ground, for the

\* There is certainly some use to geographers in this custom of the Spaniards naming places from the Saint's day in which they take possession, or make the discovery, as it points out to posterity the time of the year when the event happened.

<sup>p</sup> *Sus cazas*, which like the French word *chasse* and Italian *caccia*, comprehends also fowling. In Sir Ashton Lever's most capital museum may be seen what contrivances are used by the Indians of St. George's Sound N. Lat. 50. on this same coast and for these purposes. There is also in the same noble repository some birdlime from the newly discovered Sandwich islands.

doors to which they make use of a circular hole, just large enough for their bodies to pass through. The floors of these huts are perfectly smooth and clean, with a square hole † two feet deep in the centre, in which they make their fire, and round which they are continually warming themselves, on account of the great cold. Such habitations also secure them, when not employed out of doors, from the wind and noxious animals.

The men however do not wear any covering, except the cold is intense, when indeed they put upon their shoulders the skins of sea-wolves, otters, deer, or other animals: many of them also have round their heads † sweet-smelling herbs. They likewise wear their hair either dishevelled over their shoulders, or otherwise *en castanna* ‡.

In the flaps of their ears they have rings like those at the end of a musquet §.

They bind their loins and legs quite down to the ancles, very closely, with strips of hide or thread.

They paint their face, and greater part of their body, regularly either with a black or blue † colour.

Their arms are covered with circles of small points in the same manner that common people in Spain often paint ships and anchors.

† Oyo or eye literally.

‡ Una rueda, literally a garland in the form of a wheel.

§ The Spaniards apply *castanna* to a particular method of dressing the hair—*peinado en castanna*, literally signifies, hair dressed to resemble a chestnut tree.

† I am informed by a gentleman long resident in Spain, that it is not unusual to have rings so placed, and that they are of use to prevent the knapsack from falling off.

‡ Azarcon.

The women cover the tops of their heads with an ornament like the crest of a helmet<sup>x</sup>, and wear their hair in two tresses<sup>y</sup>, in which they stick many sweet-smelling herbs. They also use the same rings in their caps (which are of bone) as the men are before described to do, and cover their bodies with the same skins, besides which they more decently wear an apron of the same kind, about a foot wide, with some threads formed into a fringe. They likewise bind their legs in the same manner with the men.

The underlip of these women is swelled out into three *fascias*, or risings, two of which issue from the corners of the mouth to the lowest part of the beard<sup>z</sup>, and the third from the highest point, and middle of that point to the lower, like the others<sup>a</sup>, leaving between each a space of clear flesh, which is much larger in the young than in the older women, whose faces are generally covered with punctures<sup>b</sup>, so as to be totally disfigured.

On their necks they wear various fruits<sup>c</sup>, instead of beads; some of these ornaments also consist of the bones of animals, or shells from the sea-coast.

This tribe of Indians is governed by a ruler, who directs where they shall go both to hunt and fish for what the community stands in need of. We also observed that one of these Indians always examined carefully the sea-shoar, when we went

<sup>x</sup> Copa de timbras.

<sup>y</sup> Colgadas par las mesillas.

<sup>z</sup> That is, I suppose, what would be beard in men.

<sup>a</sup> I must own, that I do not thoroughly comprehend this description, though I think I cannot have mis-translated it.

<sup>b</sup> *Picadura*, so that I conclude these swellings on the face, in such forms as described, must be occasioned by a sort of *tattooing*.

<sup>c</sup> Rather seeds perhaps.

to our ships on the close of twilight<sup>d</sup>, the occasion of which probably was to take care that all their people should return safe to their habitations about that time.

It should seem that the authority of this ruler is confined to a particular village of these habitations, together with such a district of country as may be supposed to belong to the inhabitants of such a community, who sometimes are at war with other villages, against whom they appeared to ask our assistance, making us signs<sup>e</sup> for that purpose. There are however many other villages which are friendly to each other, if not to these Indians; for on our first arrival more than 300 came down in different parties, with their women and children, who were not indeed permitted to enter the village of our Indians.

Whilst this sort of intercourse continued between us, we observed an infant who could scarcely be a year old, shooting arrows from a bow proportioned to his size and strength, and who hit one's hand at two or three yards distance, if it was held up for a mark.

We never observed that these Indians had any idols, or made sacrifices: but as we found out that they had a plurality of wives, or women, at least, we inferred, *with good reason, that they were perfect atheists.*

Upon the death of one of these Indians they raised a sort of funeral cry, and afterwards burned the body within the house of their ruler; but from this we could not pronounce they were idolaters, because the cry of lamentation might proceed from affliction, and the body might have been burnt, that the corpse

<sup>d</sup> *A la oracion*, in the original, at which time the Spaniards usually make a short prayer.

<sup>e</sup> What these were is not stated.

should



should not be exposed to wild beasts ; or perhaps this might have been done to avoid the stench of the deceased, when putrefaction might commence.

We were not able to understand one of their regulations, as they permitted our people to enter all their houses, except that of their ruler ; and yet when we had broken through this etiquette, we could not observe any thing different between the *palace*, and the other huts.

It was impossible for us to understand their language, for which reason we had no intercourse but by signs, and therefore both parties often continued in a total ignorance of each other's meaning : we observed however that they pronounced our words with great ease<sup>f</sup>.

Their arms are chiefly arrows pointed with flint, and some of them with copper or iron<sup>g</sup>, which we understood were procured from the N. and one of these was thus marked C<sub>11</sub>. These arrows are carried in quivers of wood or bone, and hang from their wrist or neck.

<sup>f</sup> From hence it may be inferred, that these Indians pronounce gutturally, as all the nations of Europe indeed do, except the English, French, and great part of Italy.

<sup>g</sup> Such are to be seen at Sir Ashton Lever's Museum from K. George's sound N. Lat. 50. which confirms the journal in their being brought from the North. I should conceive that the copper and iron here mentioned must have originally been bartered at our forts in Hudson's Bay, with the travelling hordes of Indians who resort there at stated times. Some of our own people are also very enterprizing in their excursions, as one of them within these few years hath been as far as N. Lat. 72. W. Long. from Fort Churchill 24. where he saw an open sea.—In the same noble Museum is a most particular bow from the W. coast of America N. Lat. 50. which exactly resembles one from the Labradore Coast.

But

But what they chiefly value is iron, and particularly knives or hoops of old barrels; they also readily barter for bugles, whilst they rejected both provisions or any article of dress. They pretended however that they sometimes approved the former, in order to procure our esteem; but soon after they had accepted any sort of meat, we observed that they set it aside, as of no value. At last indeed they took kindly to our biscuits, and really eat them.

Amongst these Indians there was one who had more familiar intercourse with us than all the rest, sitting down with us in sight of his countrymen.

They used tobacco, which they smoaked in small wooden pipes, in form of a trumpet, and procured from little gardens where they had planted it <sup>h</sup>.

They chiefly hunt deer, cibulos, sea-wolves, and otters, nor did we observe that they pursued any others. The only birds we met with on this part of the coast were daws, hawks, very small paroquets, ducks, and gulls; there were also some parrots with red feet, bills, and breasts, like lorics both in their heads and flight.

The fish on that coast are chiefly sardines, pejeret<sup>i</sup>, and cod; of which they only bring home as much as will satisfy the wants of the day.

We tried to find if they had ever seen other strangers, or ships than our own, but though we took great pains to inform ourselves on this head, we never could perfectly comprehend what they said; upon the whole we conceived that we were the only foreigners who had ever visited that part of the coast.

<sup>h</sup> It need scarcely be observed that tobacco is an indigenous plant in N. America, as it is also of Asia.

<sup>i</sup> In this and other instances where I do not know the animal alluded to, I shall give the Journalist's name.

We likewise endeavoured to know from them whether they had any mines or precious stones ; but in this we were likewise disappointed.

What we saw of the country leaves us no doubt of its fertility, and that it is capable of producing all the plants of Europe. In most of the gullies of the hills there are rills of clear and cool water, the sides of which are covered with herbs (as in the meadows of Europe) of both agreeable verdure and smell<sup>1</sup>. Amongst these were Castilian roses, smallage, lilies, plantain, thistles, camomile, and many others. We likewise found strawberries, raspberries, blackberries, sweet onions, and potatoes, all which grew in considerable abundance, and particularly near the rills. Amongst other plants we observed one which much resembled percelly (though not in its smell), which the Indians bruised and eat, after mixing it with onions.

The hills were covered with very large, high, and strait pines, amongst which I observed some of 120 feet<sup>k</sup> high, and 4 in diameter towards the bottom.

All these pines are proper for masts and ship-building.

The outline of the port is represented in Chart the 6th<sup>1</sup>, which was drawn by D. Bruno Heceta, D. Juan Fr. de la Bodega, and myself. Though the port is there represented as open, yet it is to be understood that the harbour is well sheltered from the S. W. W. & N. W. as also from the N. N. E. & E.

[This discovery was made by the schooner on the 9th of June.]

<sup>1</sup> Perhaps the accounts given by navigators of the beauty of a country or its productions after a long voyage may be not entirely relied upon, as they are commonly exaggerated.

<sup>k</sup> Sefanta varas.

<sup>1</sup> These Charts, which amount to nine, have never been transmitted to England.

In the W. part there is a hill 50 fathoms<sup>m</sup> high, joining to the continent on the N. side, where there is another rising of 20, both of which afford protection not only from the winds, but the attack of an enemy.

At the entrance of the port is a small island of considerable height, without a single plant upon it; and on the sides of the coast are high rocks, which are very convenient for disembarking<sup>n</sup>; goods also may be shipped so near the hill<sup>o</sup>, that a ladder may be used from the land to the vessel; and near the sand are many small rocks, which secure the ship at anchor from the S. E. and S. W.

We compleated our watering very early from the number of rills which emptied themselves into the harbour; we were likewise as soon supplied with wood.

We paid great attention to the tides, and found them to be as regular as in Europe.

We made repeated observations with regard to the latitude of this harbour, and found it was exactly 41 degrees and 7 minutes N. whilst we supposed the Longitude to be 19 degrees and 4 minutes W. of S. Blas.

We had thus thoroughly investigated every thing which relates to this harbour, except the course of a river which came from the S. W. and which appeared whilst we were at the top of the hill<sup>p</sup>. We took therefore the boat on the 18th, and found that the mouth was wider than is necessary for the discharge of the water, which is lost in the sands on each side, so that we

<sup>m</sup> Tueffas.

<sup>n</sup> By the water being deep close to these rocks.

<sup>o</sup> Sc. That of 50 fathoms in height.

<sup>p</sup> The going thither hath been before mentioned.

could not even enter it except at full tide. However we left our boat, and proceeded a league into the country, whilst the river continued of the same width; viz. 20 feet, and about five deep.

On the banks of this river were larger timber trees than we had before seen, and we conceived that in land-floods the whole plain (which was more than a quarter of a league broad) must be frequently covered with water, as there were many places where it continued to stagnate.

We gave this river the name of *Pigeons*, because at our first landing we saw large flocks of these, and other birds, some of which had pleasing notes.

On the sides of the mountains we found the same plants and fruits, as in the more immediate neighbourhood of Trinity-Harbour.

On the 19th of June, at 8 in the morning, we took up our anchors, and sailed with a gentle breeze from N. W. which had continued in the same direction all the time we were in port. It fell calm however at ten, on which we cast anchor about a cannon's shot from the little island, where we had ten fathom water, and a muddy bottom.

On the 20th in the evening the wind blew again from the N. W. and we sailed to the E. S. W. & S. E. the wind continuing N. W. which made the sea run high.

On the 21st was new moon, and the wind veered about to the W. with small rains and mists, which separated the two ships for six or eight hours, during which we made our signals by lights, and firing guns.

In order to get into the course we were to steer, if the wind proved favourable, I mentioned to our commander what I had  
read

read in D. Juan Perez's journal<sup>1</sup>, which had been delivered to him, where it was observed that this navigator had the winds from the S. & S. E. with which it was easy to run along the coast, to a high Northern latitude, and for that reason Perez was of opinion that the coast should not be approached till 49, in which I agreed with him. Our commanders indeed kept as much to windward as possible in order to take advantage of the wind, when it should become fair; but it soon changed to the W. & N. W. which drove us on that part of the coast which we wanted to avoid.

On this same day we repaired several damages which our ship had suffered, with the greatest alacrity, in hopes of prosecuting our discoveries, and found that she sailed better comparatively with the frigate than she had done before<sup>2</sup>.

On the 2d of July some other damages were repaired.

Although we laid great stress upon getting to the Westward, in order that we might afterwards proceed N. as also discover some port in a lower latitude than 65, yet we were not able to effect this, as the wind from being W. turned to the N. W. and drove us upon the coast [too early].

On the 9th of July I conceived myself to be in the latitude of the mouth of a river<sup>3</sup>, discovered by John de Fuca (according to the French map) which we therefore endeavoured to make for, whilst at the same time we observed that the sea was coloured, as in soundings; many fish<sup>4</sup>, reeds 20 feet long, and the *Orange-*

<sup>1</sup> It appears afterwards that this D. Juan Perez. was *ensign* on board the frigate, and that he had sailed in a former voyage of discovery to a considerable N. Latitude on the W. coast of America.

<sup>2</sup> The particulars of these repairs, as also in what respect she sailed better, are omitted as uninteresting.

<sup>3</sup> Perhaps *gulf* [boca].

<sup>4</sup> *Toninas*, supposed to be porpoises.

*beads* \* likewise appeared; all of which circumstances shewed that we were not far distant from the coast.

The same day both wind and sea increased so much that our deck was thoroughly wetted, and our cistern of water also was much damaged, on which account it became necessary to steer S. W. from five in the evening till day-break, when the sea became more calm, and wind more fair; so that we sailed N. and a point to the E. hoping to discover the land.

At sun-set the horizon was more clear, and the signs of approaching the coast greatly increased; as we could not distinguish it however we kept in the wake of the frigate, by very clear moonlight.

On the 11th at day break the sky was very bright, there was an appearance of soundings, much sea-weed, many birds, and the greatest signs of being near land. In effect at 11 the sun shone, and we distinguished the coast to the N. W. when we were about 12 leagues from it.

In the evening both wind and sea rose so much that the frigate thought it right to keep us in sight, and we were much fatigued by the violence of the weather.

On the 12th we had got five or six leagues to the N. of the frigate, whilst we were but three leagues from the land, with a more favourable wind and calmer sea, so that we joined her by eleven. At six in the evening the coast was not more distant than a league, when we distinguished various headlands, many small islands, as also mountains covered with snow.

We likewise found a barren island about half a league in circumference, which we called *de Dolores*.

\* A sea-plant before described.



We now carried all the sail we could to follow the frigate, but we could not do so at the proper distance, in so much that at sunset we lost sight of her, and although during the whole night we hung out lights, fired our guns, as also rockets, she never answered our signals, from which we concluded that they could not be distinguished by our companion.

On the 13th however the frigate appeared at a great distance, and seemed to be making for the coast.

We now sounded, and found 30 fathoms of water, casting anchor two leagues and half from the land. At twelve on the same day we saw the frigate still at a greater distance to leeward, though she endeavoured to approach the coast. On this we set sail to join her, keeping at the same time as near to the land as we could, and being not farther distant than a mile, we plainly distinguished, as we passed to the S. W. the plains, small detached rocks, and low headlands, till six in the evening. As we could not however find any port, and could not bear to lose the Northing we had gained with so much trouble, we determined to cast anchor near a point, where we thought we should be able to procure wood and water, as well as masts.

The frigate was now not more than half a league distant, and we therefore made a signal to her to cast anchor, having eight fathoms of water upon sounding.

After this I soon went on board the frigate, the Captain of which told me that the Commander of the schooner should come to him, in order to hold a council, whether the schooner should proceed or not to a higher latitude, as every minute we stayed longer on the coast, would subject us to greater risques, both from the winds and sea. This was also the more to be dreaded, as the whole crew of the frigate had been sick for the two last days, whilst the commander himself was far from well. The  
captain

captain of the schooner therefore was to keep near, and jointly take possession of this part of the coast. I accordingly carried these orders to the schooner, whose captain directed that the next day we should join the frigate.

In the mean while nine canoes of tall and stout Indians appeared, who invited the crew of the schooner with great cordiality to eat, drink, and sleep with them.

Our commander took care to regale them in the best manner he could, and particularly their chieftains, as well as those who came the most readily on board, giving them whatever they seemed most to desire.

The Indians, being obliged by these civilities, rowed near to our ship, making friendly signs, and as we answered by the same civilities, they left us at nine, and soon returned with fish of many sorts, *pagro*, whale, and salmon, as also flesh of several animals, well cured under ground. These presents, in sufficient abundance, were offered to our commander, after which they returned to their villages, leaving us in high admiration of their noble proceedings.

On the 14th in the morning the sea ebbed so low, that the ridges of rocks appeared along the coast, which prevented us from then sailing, and obliged us to wait for the full of the tide, which was to happen at 12 at noon. During this interval the Indians trafficked with us for various skins of animals, for which they expected some peices of iron in exchange, which they manifested by putting their hands upon the rudder-irons\*; our people therefore procured them such, from old chests, after which they returned to their village, making the same signs as they had done the day before.

\* Los Machos del timon.

On the 1st of July we were to go on shore by order of our commander; and as we were still to continue our voyage for some time, it was necessary we should procure a sufficient quantity of water (so much being used since we sailed from Port Trinity) though hitherto we had not been able to effect this from want of a proper tide, which at the same time prevented us from getting wood and a mast. For this reason such part of the crew was pitched upon who were likely to be most active in the service, each of them taking a gun and pistol, and some of them a cutlass<sup>y</sup> and cartridge-box, the whole party being put under the command of Pedro Santa-Ana<sup>z</sup>, who always distinguished himself upon such occasions. They also took with them hatchets, and were directed to send us back the boat, that we might fill it with casks, after which they were to carry them to that part of the coast where they could soonest compleat their watering.

Our detachment therefore contrived to land where there was the deepest water, and the nearest possible to a river. They had scarcely done this, however, when the Indians rushed out from the mountains to the number of 300, and surrounding our seamen immediately, we concluded that the whole detachment would have been cut off, as we only perceived a single fire from our people, and that two of them running to the shore threw themselves into the sea, whose fate we could not know on account of the shallows of the coast.

As we therefore could not help our comrades, by not having sufficient depth of sea for our vessel, we fired our great guns and

<sup>y</sup> Sabre.

<sup>z</sup> He is stated to have been contro-maestre, or perhaps master's mate.

muskets; but as our shot did not reach the Indians, nor could they know what damage we might do them at a less distance, they did not move at all, or desist from their treacherous attack. On this, not being able to succour our comrades, we hoisted a signal of distress, which the frigate being so far off could not distinguish. The Indians however at eleven returned to their villages, whilst we neither could see our seamen or their boats.

By twelve at noon it was full sea, and we endeavoured to reach the frigate, every one exerting themselves to the utmost; our whole crew, indeed, now consisted of but five men and a boy, who were in health, with four that were sick.

As soon as we had set sail, nine canoes of Indians, with an increased number of men on board, placed themselves at a fixed distance from us, whilst one of them, with only nine chieftains\* on board, rowed pretty near to the side of our vessel, offering us, whilst their bows were unbent, some handsome jackets, and practising their former arts of deceit, by tempting us with the provisions they had before supplied.

But we were now upon our guard, and preparing for our defence, though we still thought it right on our part to entice them nearer, by shewing bugles and other trifles, which had as little effect upon our enemies, who contrived however to make signs that we should go on shore. At last they were tired of these overtures, and knowing the small number of our crew, they made a shew of surrounding our vessel; holding their bows bent against us.

On the other hand, though we had but three on board able to handle a musquet (viz. our Captain, his servant, and myself)

\* So the original; and I conclude the meaning to be, that in this canoe there were none but chieftains.

yet

yet we soon killed six of the Indians, as also damaged their canoe. They now experienced how much we were able to annoy them, and seemed to be astonished. They afterwards covered their dead with their jackets, and at last returned to such a distance that we could not reach them with our shot; in which retreat they were assisted by the other canoes, who had not before supported them. They then held a council, which ended in their going back to their village.

Our commander, in the mean time, hearing the discharge of our musquets, thought we should want ammunition, and sent us some in the launch, in which we cast anchor along side of the frigate. We then went on board, hoping that we should be permitted to use the launch, land with an armed force, destroy the villages of the Indians, and try to recover those of our own people, who perhaps had hid themselves in the woods, or had saved themselves by swimming.

On this point we held a council, at which the commander stated our dangerous situation, the difficulties in landing we were to expect, both from sea and weather, and the distance of the village; he also added, that the destruction of our people was almost distinctly seen, and therefore that there could be little probability of any one's having escaped.

D. Cristoval de Revilla and D. Juan Perez were of opinion we should directly sail, although the commander<sup>b</sup> and myself pressed taking some revenge for the butchery of our comrades, as likewise waiting to know the fate of those who might have survived by swimming, and who must necessarily surrender themselves to the Barbarians. We also dwelt upon the strong presumption, that it would be agreeable to his majesty that the In-

<sup>b</sup> The commander seems to have given different advice before.

dians should feel the superior force of his arms, who would otherwise treat future discoverers in the same manner; we added, that though the village was not near, yet if we waited till next day we might reach it, whilst it might be expected that the winds would not blow with violence at the new moon.

The reasons on both sides having been thus urged, the commander readily consented to follow the advice and wishes of the majority.

When this point was decided, our commander took our opinions with regard to the schooner's proceeding, as she was in so bad plight; when (except D. Cristoval de Revilla) we all agreed that she should continue to prosecute her voyage. These our opinions were reduced into writing on the 16th.

[These are again omitted, as probably uninteresting to the reader: but both the captain of the schooner, and the journalist agreeing to proceed;]

On the 14th of July we sailed, at five in the evening, from this road, which lies in 47. 21 N. Lat<sup>c</sup>. the wind being N. W. and N. N. W. by which we left the coast, steering S. W.

On the 19th our captain received some letters from Don Juan Perez (ensign<sup>d</sup> of the frigate) as likewise the surgeon, in which they stated the then health of their crew, and desiring our opinion thereon.

[Here follow the answers of the captain of the schooner and Maurelle the journalist, who, to their great credit, persist in their voyage of discovery.]

<sup>c</sup> The longitude is not stated, but by the ship's reckoning I find that the W. Longitude from St. Blas was 21 19.

<sup>d</sup> Alferex.

Till the 24th the wind continued N. W. & N. when the schooner received from the frigate a cannon, with a box of powder and ball.

From the 24th to the 30th we steered N. W. when at sunset there were great threatenings of a storm, and the weather becoming dark, the sea ran so high, that we could not distinguish the lights of the frigate, and were obliged to make our signals by guns and rockets.

On the 31st it continued to be so dark that even during the day we could not see the frigate.

On the 1st of August at day-break we had the same dark weather, so that we could not distinguish at half a league's distance, nor had we sight of the frigate: we kept on however (the wind abating) with a Westerly course, till the 4th, when we supposed ourselves to be 17 leagues W. of the continent.

On the 5th the wind began to be favourable from the S. W. and the frigate still not appearing, our captain consulted us whether we should prosecute our discoveries. We had indeed for the last two months been reduced to short allowance of provisions, and a quart of water each day, since we left the last land; our bread also was almost spoiled by the sea getting into the bread-room, and the season for sailing to the Northward began almost to end. Yet notwithstanding these, and other objections, we continued unanimously of opinion to execute our orders; as, if we did otherwise, his majesty must have incurred the expence of a fresh expedition. Our crew likewise was now animated, and every one agreed to contribute proportionably for a solemn mass to our Lady of Bethlem, intreating her that we might be able to reach the Latitude enjoined by our instructions. This proposal of the crew being communicated to the captain, he applauded much their ardour and devotion, which was rewarded before evening, by the winds blowing from a favourable quarter.

On

On the 10th there was a full moon, and the wind blew fresh from the S. W.

On the 13th we conceived ourselves to be in soundings from the colour of the sea; at the same time appeared *Orange beads*, many flags, many birds, with red feet, breast, and beak, as also many whales; all which were certain signs of our nearer approach to land.

During the 14th and 15th these signs increased, when we found ourselves in N. Lat. 56, 8. & 154 leagues W. of the continent, and 69 leagues from an island to be found in our chart\*, which likewise pointed out an archipelago in the same parallel. This search however was attended with great difficulty, as the wind blew with great violence, whilst the mists did not permit us to distinguish any distant object.

At noon on the 16th we saw land to the N. W. at the distance of six leagues, and it soon afterwards opened to the N. E. presenting considerable headlands and mountains, one of which was of an immense height, being situated upon a projecting cape, and of the most regular and beautiful form I had ever seen. It was also quite detached from the great ridge of mountains. Its top was covered with snow, under which appeared some wide gullies, which continue till about the middle of the mountain, and from thence to the bottom are trees of the same kind as those at Trinity†.

We named this mountain *St. Jacinthus*‡ and the cape *del Engano*⁴, both of which are situated in N. Lat. 57. 2. and by two

\* I should rather suppose that this was the chart of D. Juan Perez, who was on board, and had been on a former voyage of discovery.

† Before described to be pines.

‡ There is a monastery of *St. Jacinthus*, at a small distance from Mexico. Gage's Survey of the W. Indies.

⁴ Or of deceit.]

repeated



repeated observations at a mile's distance we found the W. Long. from St. Blas to be 34. 12.

From this cape we fixed the principal points on the coast, as will appear by our chart.

On the 17th the wind blew moderate from the S. by means of which we entered a bay that was three leagues wide at its mouth, and which was protected from the N. by cape *del Enganno*; on the opposite side to this cape we discovered a port more than a league wide at the entrance, perfectly secure from all winds but the S. We nearly approached the sides of this bay, and never found less than fifty fathoms in depth; but we could not perceive any kind of flat or plain, as the mountains come quite down to the shore. Notwithstanding this we distinguished a small river, which (it being night) we did not further attend to, but cast anchor in 66 fathoms, the bottom being a clay, as we found upon drawing up our anchors.

This port is situated in 57. 11 N. Lat. and 34. 12. W. Long. from S. Blas; which, together with the headland, we named Guadehupe.

On the 18th we sailed again, with little wind; when two canoes, with four Indians in each, appeared (viz. two men and two women) who, however, did not seem to wish to come on board us, but only made signs that we should go on shore.

We continued our course however (the wind being N. W.) till nine in the morning, when we entered another port, not so large indeed, but the adjacent country much more desirable to navigators, as a river empties itself here of eight or ten feet wide, whilst the harbour is protected from almost every wind, by means of a long ridge of high islands, almost joining each other, with anchorage of 18 fathoms, the bottom being a sand. Here we cast anchor at a pistol's shot from the land, where we saw, on  
the

the bank of the river, a high house, and a parapet<sup>1</sup> of timber supported by stakes drove into the ground, where we observed ten Indian men, besides women and children.

We named this port *de los Remedios*, and found that it was situated in 57. 18 N Lat. and 34. 12 W. Long. from St. Blas.

The same day, having prepared ourselves for defence against the Indians, five of us landed about noon, when, having posted ourselves in the safest place we could fix upon, we planted the crosses with all proper devotion, cutting another on a rock<sup>2</sup>, and displaying the Spanish colours, according to our instructions on that head.

When we had thus taken possession of the country we advanced quite to the bank of the river, in order to fix upon the most convenient place for water, which we were in great want of, as well as still greater of wood; so that we were under an absolute necessity of providing ourselves with both. Having fixed upon the proper spot, we now returned to the ship, the Indians having not come forth from their parapet.

We soon however perceived them approach the place where we had fixed the crosses, which they took away, and fixed it on the front of their house, in the proper direction, whilst at the same time they made us signs with their open arms, that they had thus taken possession of our crosses.

On the 19th we landed at a point somewhat distant, to procure wood and a mast, whilst we secured our retreat by a proper disposition of swivels and musquetry.

Afterwards we returned to the mouth of the river, to fill our barrels with water, when the Indians hung out a white leaf<sup>1</sup> from

<sup>1</sup> Probably this was a stage for curing fish, of which these Indians soon offered a present to the Spaniards.

<sup>2</sup> Penna.

<sup>1</sup> Oia.

a pole, fixed very near to their house, and advancing to the opposite bank without any arms, they made several signs, which we did not comprehend. We however signified to them in the best manner we could that we came only for water<sup>m</sup>; on which the chieftain of the Indians, conceiving that we were very dry, brought with him a cup of it, with some cured fish, as far as the middle of the river, where it was received by one of our seamen, who directed the Indian to present the water and fish to our captain, who immediately returned him in exchange bugles and small pieces of cloth. The Indians however were not to be so satisfied, but insisted on other barter for the water, which we refusing on our part, they threatened us with long and large lances pointed with flint, which we paid no other attention to but that of securing our post. Our assailants at last finding that we

<sup>m</sup> The behaviour of these Indians in their intercourse with the Spaniards seems to prove a rather superior degree of civilization, than is generally experienced from Barbarians.

We find by this account, that the Spaniards, having fixed a cross upon their ground, the Indians resent this mark of ownership, and (as a Spaniard would have done in his own country if his neighbour thus endeavoured to make good a claim) immediately remove the cross; in which the laws of Europe would certainly have supported them. The leaving any symbol of possession upon an uninhabited and uncultivated district may indeed give a right against poster<sup>r</sup> or claimants who cannot set up a better; but this part of the American continent was not only peopled, but we are informed a house and fishing-stage had been built upon it.

We find by this journal, that the Viceroy of Mexico most particularly enjoined by his instructions that possession should be thus taken, conceiving probably that the converting Indians to the Christian faith, entitles the converter to every thing which may belong to the converts. This flimsy right however could not be maintained an instant even upon this ground, in any Court of common sense, for the Spaniards neither intended then, or hereafter, to make a settlement in this Northern Latitude, without which it is impossible that such pious intentions could be accomplished.

we did not wish to surround them, but held them in contempt, went back to their houses, as we did to our ship, having procured the wood and single mast which we wanted, though not so much water as would have been convenient; but we did not think it right to carry away more, that we might not further irritate the inhabitants.

At the mouth of the river there was abundance of fish, of which our people caught many whilst we were on shoar, and we could have procured a sufficient quantity to have lasted us a great while, had we been prepared with proper tackle. They were well tasted, and in vast numbers.

The mountains were covered with the same sort of pines as at *Trinity*: the inhabitants also use the same dress, only rather longer; they likewise wear a cap over their hair, which covers their whole head.

The Spaniards, after this, inform the Indians, by signs, that they want water, on which one of the Americans brings a cup thus filled, with some cured fish, half way across the river, and stops there till a Spaniard advances the other half to receive it, whilst bugles and other trifles are offered in exchange by the Spaniards, and refused by the Indians, who insist on a better sort of payment.

It is evident, by the presents of the cup of water\* and cured fish, that the Indians wished to supply all the wants of these strangers as far as they were able, notwithstanding they had thus endeavoured to gain a wrongful possession of their country; they seem therefore to have had a right to that species of barter which they stood most in need of.

This contempt for bugles, and other trifles, offered by the Spaniards, is a further proof of the civilization of these Indians, whose progenitors, it should seem, must be rather looked for on the Asiatic, than Labradore coast, as I am informed that they have beards, which the Indians of the central and Eastern coast of N. America have not. It is said indeed by some, that these Indians eradicate their beard from its earliest appearance; but I can as little believe that this can be effected by any industry, as that they could by any art or pains make hair grow upon the palms of their hands.

\* I am informed, that the inhabitants of K. George's Sound, on this same coast, insisted upon Capt. Cook's paying for the grass he had cut.

We found the weather excessively cold, with much rain and fogs, nor did we see the sun for the three days we continued here. At the same time we had only faint land-breezes; from all which circumstances, as well as the great fatigue of our seamen, little cover from the bad weather, and great want of proper cloaks to keep them warm, our ship's company so sickened, that we could only muster two men for every watch.

On the 21st we steered N. W. the wind being at S. E. in order to discover whether there was any land to the E. when we might reach two degrees of higher latitude to the N. or whether it did not lie to the W. which we conceived to be more probable.

On the 22d we knew, by our reckoning, that we must be near the Eastern part of the coast<sup>m</sup>, as we found ourselves by an observation at noon to be in 57. 18 N. Lat.

At two in the evening the wind blew fresh at N. W. when we wanted to gain so much Westing as to permit the reaching a higher Northern Latitude, in which attempt we must have therefore lost many days, whilst the season for prosecuting our discoveries drew so near to an end. To this it must be added, that the sickness of our crew increased every day, by their great fatigues, on which account we desisted from our Northern course, and steered S. E. approaching the coast at a less distance than a mile, and endeavouring to observe every projection of it.

Though we now therefore determined to return to S. Blas, yet we comforted ourselves in having reached so high a latitude as 58°, beyond what any other Navigators had been able to effect in those seas, though our vessel sailed so indifferently that we often had thoughts of quitting her.

<sup>m</sup> Sc. as laid down by Bellin.

<sup>n</sup> By the table only 57. 57. Capt. Cook however is said to have traced the W. coast of America beyond 60 N. Lat. when it runs for some degrees nearly E.

In sailing along the coast we took indefatigable pains to observe with precision how it lay, from which innumerable objections offered themselves to M. Bellin's Charts.

This engineer hath chiefly founded himself upon the tracks of two Russian Navigators, Beering and Tschirikow, who were sent upon discoveries in 1741. It is evident however that the Russian maps are not to be depended upon, for if they had been tolerably accurate we should have fallen in with the land to the Westward, more easily than to the East\*.

Bellin is not less erroneous in laying down the American coast, and indeed it is not at all extraordinary that his errors should be so numerous, as he had no materials for his charts, but his own fruitful imagination; no navigator having visited many parts of the American continent in these high latitudes but ourselves.

We now attempted to find out the straits† of Admiral Fonte, though as yet we had not discovered the Archipelago of S. Lazarus, through which he is said to have sailed.

With this intent we searched every bay and recess of the coast, and sailed round every headland, lying to during the night, that we might not lose sight of this entrance; after these pains taken, and being favoured by a N. W. wind‡, it may be pronounced that no such straits are to be found.

On the 24th at 2 in the evening, and being in 55. 17 N. Lat. we doubled a cape, and entered into a large bay, discovering to

\* The journalist seems to speak here with regard to the then situation of the schooner. Other objections follow to Bellin's map, which cannot be comprehended without having the chart before one.

† Entrada, or entrance into them rather. In a map which I have procured, this entrance is laid down in N. Lat. 48. and said to have been discovered by Juan de Fuca in 1592.

‡ It must now be recollected that the schooner is returning to S. Blas.

the N. an arm of the sea, where the temperature was very unpleasant<sup>1</sup>, but the sea perfectly calm, being sheltered from the wind. This *arm* also affords excellent water from rills and pools, whilst the anchorage is good, with a vast plenty of fish. It is delineated in one of our charts.

As we were now becalmed, the schooner rowed till we cast anchor in the entrance or mouth, the water being 20 fathoms, and the bottom soft mud. At this time we were not more than two musquet shots from the land, and wished to lay down the interior parts, but were not able to effect this for want of wind. We now experienced a pleasant temperature, which probably arose from some large volcanoes, the light of which we perceived during the night, though at a considerable distance. This unexpected warmth totally restored the health of our crew<sup>2</sup>.

As we thus lay at anchor, and so much to our satisfaction, our Captain gave me orders (being himself indisposed) that I should land with some of our crew, and with the same precautions as at *Los Remedios*. He also directed me to take possession for his Majesty of this part of the coast, and name it Bucarely<sup>3</sup>. I accordingly obeyed his instructions in all particulars, without seeing a single Indian, though there were the following proofs of the country's being inhabited; viz. a hut, some paths, and a wooden outhouse<sup>4</sup>. On the 24th we went a second time on shore, and provided ourselves with as much wood and water as we wanted.

<sup>1</sup> It is to be supposed on account of the cold.

<sup>2</sup> It must be recollected, that they were now sheltered from the wind: as well as warmed by the Vulcanoes.

<sup>3</sup> Then Viceroy of Mexico.

<sup>4</sup> Corral.



We made two observations on different days, and found our latitude to be 55. 17. and W. Long. from S. Blas 32. 9.

The mountains near this port or inlet are covered with the same trees as those at the other places, where we had landed, but I can say nothing with regard to the inhabitants, from what hath been before stated.

To the S. we saw an island of a moderate height, at the distance of six leagues, which we named S. Carlos, and sailed on the 29th with a gentle breeze at N. but which fell calm at noon, when we were opposite to a bare island, which scarcely appeared above the sea; there are many rocks however, both to the E. and W. Here we anchored in 22 fathoms, and about two leagues distant from the island of S. Carlos.

In this situation we observed a Cape, which we named St. Augustine, at the distance of four or five leagues; after which the coast trended to the E. so much that we lost sight of it. We found also that there were here such violent currents in opposite directions, that we could not sound. As these currents rose and fell with the tide, it should seem that this inlet hath no communication but with the sea.

This cape S. Augustine is nearly in 55 N. Lat. and we having heard that in a former voyage D. Juan Perez had discovered an arm of the sea in this same parallel, where there were many currents, we justly concluded this must be the same, though several seamen who were in that voyage, did not recollect either the cape or mountains in the neighbourhood, but this probably arose from their not approaching them in the same direction.

What we observed on this part of the coast strongly inclined us to have a more perfect knowledge of it; the wind however (it being new moon) became variable, and fixed at last in the S. W.

We



We concluded that it would thus continue till the full<sup>x</sup>, which would prevent us from approaching the mouth of this bay, and consequently make it impossible to explore the sides of it. We likewise considered that we were now in such a latitude that we might easily reach 60 degrees if the wind was favourable<sup>y</sup>, that moreover we were provided with what we had occasion for, that the health of our crews was re-established, and that for all these reasons it would be better to attempt reaching the highest Latitude we could.

To these arguments it was added, that we should have fewer difficulties in this trial from our knowledge of the coast; and this measure being thus resolved upon, the two ships divided some cloaths<sup>z</sup> (which the schooner had on board, to truck with the Indians at Port Trinity) so that our people seemed now to have forgotten all their sufferings. We accordingly sailed, steering N. W.

On the 28th the wind was variable, obliging us to approach the coast at 55. 50. when it fixed in the evening to the S. W. according to our wishes.

On the 29th and 30th the wind was S. though often veering to the S. W. with occasional squalls and tornadoes, accompanied by high seas, which drove us on the coast in 56 70. from whence we clawed off with the land breeze and tornadoes, in which disagreeable situation we continued till the first of September.

During the two preceding days six of our crew were seized with strong symptoms of the scurvy, which not only shewed

<sup>x</sup> The Spaniards, during this voyage, seem to have paid great attention to the moon, as having an effect upon the wind.

<sup>y</sup> A S. W. was so.

<sup>z</sup> This additional cloathing was probably thought necessary, as the ships were now to sail N. whilst the winter was approaching.

itself

itself in their gums, but from the great swellings on their legs they had lost the use of them. From this calamity we could only muster two on each guard, one of which steered, and the other handled the sails. We unfortunately caught this terrible distemper from the seamen of the frigate, with whom we had occasional communication. In consequence of this distress we agreed now to return, making as many observations as we could in relation to the lying of the coast.

At the beginning of September the wind was variable, but on the 6th it fixed in the S. W. blowing with such force that at midnight we were obliged to take in all our sails, and turn the ship's head to the S. whilst the wind and sea increased, in so much that at two in the morning of the 7th neither vessel could resist its violence, though we each endeavoured to keep where we were, on account of the coast being at so small a distance.

Whilst we were thus employed a sea broke in, which damaged most of our stores. [The particulars of other damage to parts of the ship here follows, but is omitted for reasons that have been before mentioned.]

On this same day (viz. 7th of September), both wind and sea became more calm; on which we steered E. from 6 in the evening till day-break of the next day, when the wind was favourable from the N. W. and we pursued our intentions of falling in again with the coast, in Lat. 55. finding ourselves, since the storm, with only one seaman who could stand to the helm, whilst the captain or myself managed the sails.

The wind continuing favourable, our captain endeavoured to cheer those who were sick, but we could only prevail upon two of them who were recovering to assist us during the day; as for the master's mate, we conceived that he would die.

On

On the 11th we saw land, at the distance of eight or nine leagues, and in Lat. 53. 54. but as we wished not to approach so near as not to be able to leave it, on account of our having so few hands capable of working, we kept at a proper distance, only having a view of it from day to day, and not examining its capes, bays, and ports.

In Lat. 49. however we endeavoured to draw nearer to the land, both because we were persuaded that the wind would continue favourable, and that some of the convalescents might now begin to assist us; so that in Lat. 47. 3. we were not farther distant than a mile, when we attended to all proper particulars\*, as before.

On the 20th, at eight in the morning, we were within half a league, precisely in the same situation as on the 13th of July; we found however 17 leagues difference with regard to our Longitude.

On the 21st, being still nearer the coast, the wind blew from the S. & S. W. which, though moderate, obliged us to sail from the land.

On the 22d the wind was N. W. but as both the captain and myself were ill of a fever, the ship steer'd for the port of Monterey. This our sickness made the rest of the crew almost despair; for which reason the captain and myself shewed ourselves upon the deck as often as we could, in which efforts the Almighty assisted us.

On the 24th, finding ourselves somewhat better, we discovered the land in 45. 27. sailing along the coast at about the distance of a cannon's shot; and as we therefore could distinctly see every considerable object, we lay to during the night,

\* That is, for laying the coast down in their charts.

hoping thus to find the river of Martin Aquilar, and continued this search till we were in Lat. 45. 50. when we distinguished a cape exactly resembling a round table, with some red gullies<sup>b</sup>, from which the coast trends to the S. W. From this part rise ten small islands, and some others which are scarcely above the sea; the Latitude of this Cape hath before been mentioned, and its Longitude is 20. 4. W. from S. Blas. As we therefore could see nothing of Martin de Aquilar's River in this second trial, we conclude that it is not to be found, for we must have discovered it, if any such river was on this part of the coast.

It is said indeed that Aquilar observed the mouth of this river in 43<sup>c</sup>, but the instruments of those times<sup>d</sup> were very imperfect. Allowing the error however to have been in making the latitude too high, and that therefore we might have found it in 42 or lower; yet this we can scarcely conceive to be the truth, as we examined all that part of the coast, except about fifty minutes of Latitude.

After this last return to the coast, we endeavoured to make for the port of S. Francisco, which having discovered in 38. 18. we entered a bay which is sufficiently sheltered from the N. and S. W. We soon afterwards distinguished the mouth of a considerable river, and some way up a large port exactly resembling a dock<sup>e</sup>; we therefore concluded this to be the harbour of S. Francisco (which we were in search of), as the History of California places it in 38. 4.

<sup>b</sup> Barancas.

<sup>c</sup> This is stated before, when the river was looked out for in that latitude.

<sup>d</sup> Viz. in 1603.

<sup>e</sup> Digue.

We

We wished, on this account, to enter this port, which we should have easily accomplished, if the sea had not run very high. We began however to doubt whether this was really the harbour of S. Francisco, because we did not see any inhabitants, nor the small islands which are said to be opposite. In this state of suspense we cast anchor near one of the points which we called *de Arenas*, in six fathoms and a clay bottom.

A vast number of Indians now presented themselves on both points<sup>f</sup>, who passed from one to the other in small canoes made of *Fule*<sup>g</sup>, where they talked loudly for two hours or more, till at last two of them came along side of the ship, and most liberally presented us with plumes of feathers, rosaries of bone, garments of feathers, as also garlands of the same materials, which they wore round their head, and a canister of seeds, which tasted much like walnuts. Our captain gave them in return bugles, looking glasses<sup>h</sup>, and peices of cloth.

These Indians are large and strong, their colour being the same as that of the whole territory<sup>i</sup>; their disposition is most liberal, as they seemed to expect no recompense for what they had furnished us with: a circumstance which we had not experienced in those to the Northward.

We were not able to sound the interior parts of this port, on account of our sick, who were to be as soon as possible landed in a place of safety, in order that they might have the better chance of recovering.

<sup>f</sup> Sc. Those just now named by the journalist *de Arenas*.

<sup>g</sup> Some sort of wood, and probably well known in the province of Mexico.

<sup>h</sup> In the former intercourse with the more Northern Indians the Spaniards never produced this article of barter, which seems to have been ill-judged economy. They were now returning however, and must have thrown away these trifles at S. Blas.

<sup>i</sup> It is not very clear whether the Journalist means by this of Mexico, or the whole N. Western continent of America.

Whilst we were in this port (which we did not conceive to be that of S. Francisco) we had no further intercourse with the inhabitants, and we prepared to clear the point *de las Arenas*, in order that, with a N. W. wind, the next day we might, with less difficulty, leave this part of the coast. Having effected this, we cast anchor in six fathoms, the bottom being a clay.

This port, which we named *de la Bodega*<sup>1</sup>, is situated in 38. 18. N. Lat. and 18. 4 W. Long. from S. Blas.

On the 4th of October, at two in the morning, on the first flow of the tide, in a contrary direction to that of the currents, the sea ran so high that our whole ship was entirely covered by it, at the same time that the boat on the side of her was broken into shivers.

There is not sufficient depth of anchorage at the mouth of this port, for a vessel to resist this violence of surge, when it is occasioned by the causes before-mentioned.

If we had been apprized of this circumstance, we should have either continued where we were first at anchor, or otherwise sailed further from the mouth of the harbour.

In all parts of this port, which we had an opportunity of sounding, the bottom is nearly of the same depth<sup>k</sup>. The entrance is very easy with the prevailing wind of N. W. but in leaving it, if the wind blows from the same quarter, it is necessary to get further out to sea from the *Points*<sup>l</sup>. If the wind blows from the S. W. E. or S. it is not necessary to take this precaution<sup>m</sup>.

<sup>1</sup> The Captain of the Schooner. The Latitude of this harbour coincides nearly with that discovered by Sir *Francis Drake*; but the Spaniards would scarcely insert this brave heretic in their Calendar.

<sup>k</sup> A draft was made of this harbour.

<sup>l</sup> Sc. de las Arenas.

<sup>m</sup> Because then the wind and currents do not oppose each other.

We observed, that the tides in this Latitude are regular, as in Europe, it being high water at noon, when the moon is new.

The mountains near this port are entirely naked in every part of them<sup>a</sup>; but we observed that those more inland were covered with trees.

The plains near the sea-coast had a good verdure, and seemed to invite cultivation.

About eight in the morning of the 4th of October the sea became more calm, on which the Indians came round us as before, in their canoes, offering us the same presents, which had the same return.

At nine we set sail, and having doubled the point *del Cordon*<sup>o</sup> we steered S. S. W. the wind being moderate, and at W. in order to reach a Cape, which appeared to the S. at the distance of about five leagues.

On the fifth we sailed near those small islands which the charts and history of California place at the entrance of the harbour of S. Francisco; but as we were very clear that the harbour which we had just left, was not that thus called, we continued to steer N. E. (and between some of these islands) in order to reach the Cape before mentioned, when we intended to approach the coast, and look out for the port of S. Francisco.

At noon on this same day we had an observation, and found these islands to be in 37. 55. N. Lat. lying to the S. W. of the Cape at the distance of three leagues.

As soon as we reached the Cape we ran along the coast which lay to the E. and N. E. about the distance of a cannon's shot; and by six in the evening we were not above two miles distant

<sup>a</sup> This probably arises from their being exposed to the N. W. which is the prevailing wind.

<sup>o</sup> This point undoubtedly is marked in the Spanish Chart.

from the mouth of the harbour of St. Francis; but having no boat<sup>r</sup>, or other convenience for this purpose, we resolved to stand for Monterey, and double another Cape, which projected still further from the coast<sup>s</sup>.

At ten at night it fell calm; which continued till the 6th at noon, when the wind was moderate at W. and we steered S. S. W.

By eight at night the wind freshened from the N. W. with squalls and mists.

On the 7th, at eight in the morning, we conceived ourselves to be in the latitude of Monterey, which we endeavoured therefore to keep in, though the weather was so misty, that we could not see half a league.

At three in the evening we discovered the coast to the S. W. at the distance of a mile; and finding that we now entered a bay, we soon afterwards discovered the S. Carlos at anchor, and therefore knew that we were now in the port of Monterey. On this we fired some cannon, and boats immediately came out to us, by whose assistance we anchored in three fathoms, the bottom being a sand.

This port is situated in 36 44. N. Lat. & 17 W. of S. Blas.

On the 8th we landed our sick, and amongst the rest our captain and myself, who had suffered more from the scurvy than any of them. Not one of the whole crew indeed was free from this complaint.

We immediately experienced the kind offices of the Fathers established at this mission, who procured for us all the refreshments they were able, with the most perfect charity. In truth,

<sup>r</sup> It having been demolished by a heavy sea not long before.

<sup>s</sup> That is, than the before-mentioned Cape.



we could not possibly have so soon recovered from our distressed situation, but by their unparalleled attentions to our infirmities, which they removed by reducing themselves to a most pitiful allowance.

Don Fernando de Rivuera, who commanded at this port, was equally kind, in supplying our wants, so that in about a month we were pronounced to be so much better in point of health, that we determined to return to S. Blas.

We sailed therefore from Monterey on the 1st of November, and D. Bruno Heceta supplied us with some hands from the Frigate, the crew of which had not suffered so much from the scurvy as that of the schooner. At the distance however of two leagues it fell calm so that we continued in sight of the port till the 4th, the wind being at S. & S. W.

On the 4th at noon the wind was favourable from the N. W. and we continued steering S. till the 13th when we approached the coast of California in 24. 15. N. Lat. and kept along it till Cape St. Lucas, which we left at six in the evening on the 16th.

We suppose this Cape to be in N. Lat. 22. 49. & W. Long. from S. Blas 5. 0.

On the 16th we saw the Islands of Maria, and on the 20th in the evening we cast anchor in the port of S. Blas.

Thus ended our voyage of discovery; and I trust that the fatigues and distresses which we suffered will redound to the advantage and honour of our *invincible* Sovereign, whom may God always keep under his holy protection!

FRANCISCO ANTONIO MAURELLE.

Observations of the Journalist D. ANTONIO MAURELLES;  
arising from what happened during the course of the voyage,  
with regard to the best method of making Discoveries on the  
W. coast of AMERICA, to the Northward of California.

IT may be objected, at the outset of these Observations, that the experience arising from a single voyage in those seas is not sufficient to form any solid advice on this head, which may be thoroughly depended upon. To this I answer, that our continuance on this coast was for more than eight months, and therefore must have afforded us sufficient grounds on which to build reasonable presumptions, though I cannot presume to offer them to future navigators in any stronger light.

There is no occasion to give any directions about the passage from S. Blas to Monterey, since this course hath been so frequently sailed after the establishment at the latter, and the best method of making this navigation is therefore so well known.

Suffice it then to say, that the short passage to windward, as far as the islands of Maria, is necessary, on account of the currents, which would otherwise soon carry a ship in sight of Cape St. Lucas, where probably the voyage would be retarded by calms.

Some are of opinion, that you should not sail Northward till you are considerably to the Windward of these islands; but I do not see the use of this loss of time, and think that it is sufficient just to get to the W. of them, and then steer Northerly on the very day you reach the parallel of the Marias.

In order to effect such voyage of discovery, it is necessary to gain as much W. Longitude as the winds will permit, which  
blow

blow from the N. W. to the N. as far as 15 degrees W<sup>a</sup>. and which only permit a course to the W. N. W. E. or E. S. E. whilst often such trade wind extends still further to the W. Notwithstanding this circumstance the ship should never lie to, much less steer Eastward, as thus the voyage would be much retarded.

From these 15 degrees of Westing, to 30 in the same direction, the wind is generally from N. E. to N. which will permit a N. W. course. It may perhaps be advisable even to get a Westing as far as 35 degrees, if the object of the voyage is to reach 55. 60. or even 65<sup>b</sup> of Northern Latitude, because the greater the Westing, the greater is the certainty of S. & S. W. winds, which will be so favourable to such a destination.

If when this Westing hath been gained, the winds should prove variable, I should still advise a N. E. course<sup>c</sup>. Under the supposition that the discoverer wants to fall in with the coast of America, in 55 N. Lat. he should keep between 35 & 37 W. Long. till he reaches that Latitude. If, on the contrary, he wants to explore the same coast in N. Lat. 60. I should then advise a N. W. course to be pursued till he hath gained a Westing of 39 degrees. If the navigator wishes to make discoveries even so high as 65 N. Lat. I conceive that he should then have a westing of 45 degrees, when he hath gained this parallel.

With these precautions I imagine that the persevering navigator would accomplish the height of his wishes.

<sup>a</sup> i. e. probably from S. Blas.

<sup>b</sup> It appears by the Journal, that they were instructed to proceed thus far N. if possible, which idea was probably taken from Ellis's Preface to the N. W. Passage, many extracts from which are made by Venegas, in his History of California, and particularly what relates to this supposed Latitude of 65.

<sup>c</sup> *en el primer cuadrante*, as I conceive the Spaniards make the N. E. the first quarter; the S. E. the second; the S. W. the third; and the N. W. the fourth.

As accidents however will happen in all voyages, which may drive the ship upon the coast in a lower latitude, I would then by all means advise to gain a Westing, as far as 200 leagues from the land. But it must be remembered that at perhaps 150 leagues W. the wind may be variable, though I am confident it cannot be depended upon, as favourable for any time, and would soon veer to the N. W. For these reasons I hold it to be absolutely necessary, that a westing of at least 200 leagues should be procured, till N. Lat. 50 is reached.

If the ship is blown upon the coast in lower latitudes, the crew not only suffers commonly from fatigue and sickness, but so much time is lost, that winter comes on before the great object of such a voyage can be completed. I would therefore advise sailing from S. Blas at the end of January, or at latest the beginning of February; and for this additional reason; that the crew would not suffer so much from change of temperature in the different climates, if without stopping in any lower latitude, they at once come upon the coast of America in 55. Here they might rest a little from their fatigues, procure water, recover by that fine air<sup>d</sup> if indisposed; besides, that in this latitude there would be no occasion to lose time in procuring a further Westing, as here the winds are very variable.

It need be scarcely said, that the knowing the weather, which commonly prevails in these seas, is of much importance to navigators; and it is still less necessary to advise, that particular attention should be paid to the appearances in the horizon which

<sup>d</sup> The port of *los Remedios* is here alluded to, which is in 57. 18. and where the crew recovered very fast from the warmth of the air, attributed to Vulcans in the neighbourhood. S. Blas, being in N. Lat. 22. is consequently more cool in January than perhaps any month of the year, whilst they would be in 55 perhaps at Midsummer.

threaten

threaten a storm. These however are not much to be apprehended till N. Lat. 40. as between S. Blas and that parallel, such lowering clouds either disperse themselves very soon, or fall in rain, which lulls the sea.

From 40 to 50 degrees N. (supposing the ship to have gained a Westing of 200 leagues from the American coast,) these appearances are more to be watched, as in these latitudes the S. wind blows fresh, though pretty constant.

It is to be observed also, that the S. W. in these parallels is sometimes stronger than the S. for which reason I would advise not to carry much sail.

This last precaution is still more necessary in higher latitudes than 50, since the S. W. often blows so violently that it is prudent to lie to, as these squalls do not last for any time.

I also particularly advise the navigator to guard against the effects of winds from the E. which sometimes are violent in these latitudes; not but that sometimes W. winds are equally blustering, yet they are not so common, nor last so long. It should also be noticed, that the higher the latitude, the more such weather is to be apprehended.

When the coast of America is *very near*, there is no regular wind but the N. W. and this holds to the Southward from 54 N. Lat. it sometimes blows indeed fresh from this quarter, but there is no objection to this, when the ship is on its return\*.

The sea from S. Blas to 40 degrees N. Lat. runs commonly high, when the wind is at N. W. or N. but as it does not often blow with violence from this quarter, these seas are generally

\* It must be remembered, that for this reason the Journalist advises the navigator who wants to reach a high N. Latitude, to gain so large a Westing from the coast of America.

navigable. From Lat. 40 to 50 (when near the coast) the sea often runs still higher, meeting the tide from the shoar, but I do not mean to raise too great apprehensions on this account.

At the distance however of 100 leagues from the coast the seas are often still heavier; so that I would advise lying to, if the wind is not favourable.

From 50 degrees upwards the seas rise proportionably with the winds, particularly if they blow from the S. or S.W. but soon become calm when the weather clears.

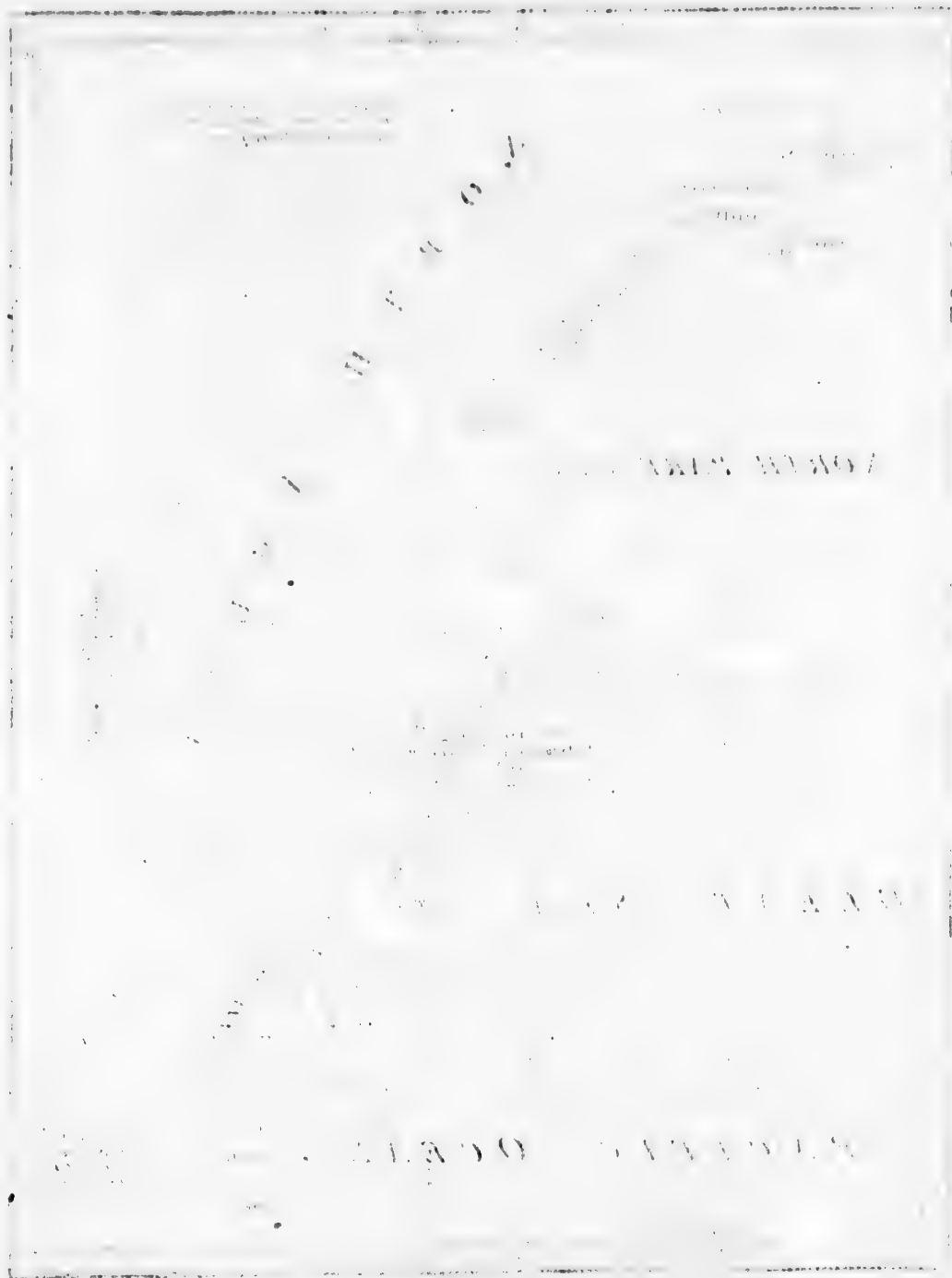
[Here follow some observations, with regard to the effect of the moon upon the weather, which I shall not translate, as the influence of this planet in such respect seems now to be much exploded.]

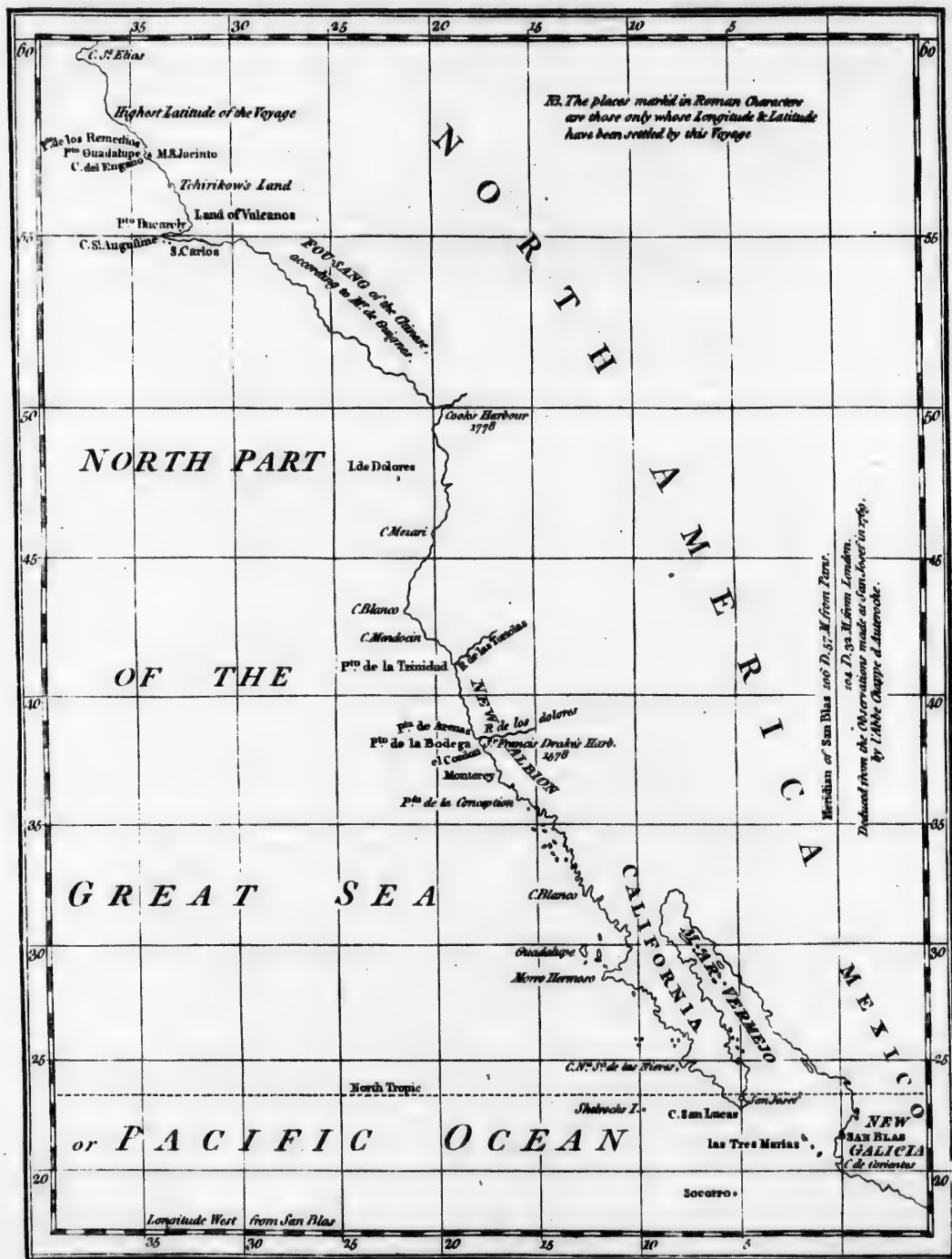
As approaches to the coast ought always to put the navigator on his guard, he may depend upon the following signs for its not being far distant.

When the coast is about 80 or 90 leagues to the E. those sea-plants appear which I have before called *Orange heads*; but I must now add, that from the state of them, as they float, one may sometimes infer, that the land is not so far distant.

Its figure much resembles the fistular stalk of 'garlick'; and from the top of its head hang some long leaves, by which the plant is fixed to the rocks. Now if these leaves are tolerably perfect, they afford a strong presumption, that they have not floated far from the coast. On the contrary, those which have been wasted to a considerable distance, have generally lost this head, and the stalk becomes more rough, when you may suppose that you are 50 leagues from the land.

\* The appearance of this plant on the coast of California, is noticed in Lord Anson's Voyage.







At the same distance the sea begins to indicate, by its colour, that you are in soundings, but this circumstance requires some attention and habit; when you are not more than 30 or 40 leagues from the coast, this appearance is much more distinguishable, though if you was to cast anchor you would not find any bottom. In this same situation you will likewise perceive birds, sea-wolves<sup>f</sup>, otters, and whales, together with the plant *Zacate del Mar* before-mentioned, which hath long and narrow leaves. When these circumstances are observed, you may depend upon seeing land the same day, or that following.

At the same time you will perceive, that the sea is of an iron colour, and looks as if it had small boats, with sails upon the surface<sup>g</sup>, whilst birds resembling lories, with a red head, bill, and legs, fly around; their body is black.

As concealed shoals are often so dangerous to the navigator, I think I may pronounce you may sail in perfect safety at the distance of a league from the most suspicious parts of this whole coast.

If the discoverer should first put into port in N. L. 55 17: he will find an inlet<sup>h</sup>, which hath good soundings in all parts of it towards the N. and perhaps the best point<sup>i</sup> of the whole coast, if the ship keeps at the distance of three leagues from it.

<sup>f</sup> Lobos Marinos, perhaps Seals.

<sup>g</sup> Unas aguas malas de color morado, que parecen unos barquichuelos, con belas latinas.

<sup>h</sup> Una entrada.

<sup>i</sup> The Journalist does not any further explain why best.

| 1775.<br>Day of the<br>month | Latitude<br>by<br>reckoning | Latitude<br>by<br>observation | W. Long.<br>from<br>San Blas | Variation<br>of the<br>Needle | Dist. from<br>the coast of<br>America |
|------------------------------|-----------------------------|-------------------------------|------------------------------|-------------------------------|---------------------------------------|
| March 1                      |                             |                               |                              |                               |                                       |
| 4                            |                             |                               |                              |                               |                                       |
| 5                            |                             |                               |                              |                               |                                       |
| 6                            |                             |                               |                              |                               |                                       |
| 7                            |                             |                               |                              |                               |                                       |
| 8                            |                             |                               |                              |                               |                                       |
| 9                            |                             |                               |                              |                               |                                       |
| 10                           |                             |                               |                              |                               |                                       |
| 11                           |                             |                               |                              |                               |                                       |
| 12                           |                             |                               |                              |                               |                                       |
| 13                           |                             |                               |                              |                               |                                       |
| 14                           |                             |                               |                              |                               |                                       |
| 15                           |                             |                               |                              |                               |                                       |
| 16                           |                             | 21 25                         |                              |                               |                                       |
| 17                           |                             |                               |                              |                               | 2                                     |
| 18                           |                             |                               |                              |                               | 1                                     |
| 19                           |                             |                               |                              |                               | 2                                     |
| 20                           |                             | 21 34                         |                              | 4 30*                         | 2                                     |
| 21                           |                             | 21 39                         |                              | *                             | 2                                     |
| 22                           |                             | 21 43                         |                              | *                             | 1                                     |
| 23                           |                             | 21 47                         |                              |                               | 2                                     |
| 24                           |                             | 21 14                         |                              |                               | 3                                     |
| 25                           | 21 36                       | 21 34                         | 1 20                         |                               | 38                                    |
| 26                           | 20 15                       | 20 10                         | 1 59                         |                               | 48                                    |
| 27                           | 19 51                       | 19 49                         | 3 2                          | 5                             | 73                                    |
| 28                           | 19 25                       | 19 17                         | 4 10                         |                               | 79                                    |
| 29                           | 19 23                       | 19 4                          | 5 1                          |                               | 86                                    |
| 30                           | 18 56                       | 18 42                         | 5 37                         |                               | 100                                   |
| 31                           | 18 42                       | 18 33                         | 5 37                         |                               | 104                                   |

| 1775.<br>Day of<br>the Month | Latitude<br>by<br>reckoning | Latitude<br>by<br>observation | W. Long.<br>from<br>San Blas | Variation<br>Needle | Dist. from<br>the coast of<br>America. |
|------------------------------|-----------------------------|-------------------------------|------------------------------|---------------------|----------------------------------------|
| April 1                      | 18 36                       | 18 33                         | 5 37                         | 5                   | 104                                    |
| 2                            | 18 35                       | 18 33                         | 5 48                         | 5 13*               | 107                                    |
| 3                            | 18 56                       | 18 48                         | 5 27                         |                     | 102                                    |
| 4                            | 18 36                       | 18 30                         | 6 8                          |                     | 108                                    |
| 5                            | 18 25                       | 18 15                         | 6 37                         |                     | 117                                    |
| 6                            | 18 2                        | 17 48                         | 7 31½                        |                     | 132                                    |
| 7                            | 17 48                       | 17 43                         | 8 36                         |                     | 140                                    |
| 8                            | 17 42                       | 17 42                         | 9 28                         |                     | 148                                    |
| 9                            | 17 43                       | 17 45                         | 10 22½                       |                     | 155                                    |
| 10                           | 17 42                       | 17 35                         | 11 8                         |                     | 165                                    |
| 11                           | 17 47                       | 17 48                         | 12 42                        | 6                   | 166                                    |
| 12                           | 17 54                       | 17 44                         | 12 22½                       |                     | 176                                    |
| 13                           | 17 49                       | 17 44                         | 13 54                        |                     | 181                                    |
| 14                           | 17 55                       | 17 47                         | 14 39                        |                     | 186                                    |
| 15                           | 18 28                       | 18 20                         | 15 35                        |                     | 186                                    |
| 16                           | 19 6                        |                               | 16 24½                       |                     | 190                                    |
| 17                           | 19 51                       | 19 50                         | 17 25½                       |                     | 201                                    |
| 18                           | 20 33                       | 20 19                         | 18 16½                       |                     | 206                                    |
| 19                           | 20 42                       | 20 37                         | 18 50½                       |                     | 209                                    |
| 20                           | 20 53                       |                               | 19 14                        |                     | 210                                    |
| 21                           | 21 8                        |                               | 20 47                        |                     | 211                                    |
| 22                           | 21 16                       | 21 4                          | 21 34½                       |                     | 222                                    |
| 23                           | 21 24                       | 21 21                         | 22 15                        |                     | 232                                    |
| 24                           | 21 55                       | 21 47                         | 23 13                        |                     | 248                                    |
| 25                           | 23 31                       | 22 32                         | 23 8                         |                     | 259                                    |
| 26                           | 23 20                       | 23 22                         | 24 13                        |                     | 277                                    |
| 27                           | 24 8                        | 24 14                         | 24 58                        |                     | 284                                    |
| 28                           | 24 48                       | 24 50                         | 25 32                        |                     | 294                                    |
| 29                           | 25 25                       | 25 17                         | 25 30                        |                     | 300                                    |
| 30                           | 26 3                        | 25 57                         | 26 22                        | 7                   |                                        |

| 1775.<br>Day of<br>the Month | Latitude<br>reckoning | Latitude<br>by<br>observation | W. T. S.<br>from<br>San Blas | Variation<br>of the<br>Needle | Dis. from<br>the coast of<br>America |
|------------------------------|-----------------------|-------------------------------|------------------------------|-------------------------------|--------------------------------------|
| May 1                        | 26 29                 | 26 31                         | 27 07                        | 7                             | 302                                  |
| 2                            | 26 45                 | 26 44                         | 27 19                        |                               | 303                                  |
| 3                            | 26 55                 | 26 50                         | 27 31                        |                               | 303                                  |
| 4                            | 27 39                 | 27 30                         | 28 18                        |                               | 304                                  |
| 5                            | 28 39                 | 28 37                         | 28 12                        | 8                             | 295                                  |
| 6                            | 29 30                 |                               | 29 15                        |                               | 281                                  |
| 7                            | 30 9                  |                               | 30 14                        |                               | 284                                  |
| 8                            | 30 19                 |                               | 30 54                        |                               | 284                                  |
| 9                            | 30 36                 | 30 45                         | 31 41                        |                               | 291                                  |
| 10                           | 31 18                 |                               | 32 15                        |                               | 297                                  |
| 11                           | 32 12                 | 32 10                         | 32 50                        |                               | 294                                  |
| 12                           | 33 13                 | 33 15                         | 32 45                        |                               | 280                                  |
| 13                           | 33 57                 | 34 3                          | 31 56                        |                               | 261                                  |
| 14                           | 34 29                 | 34 35                         | 30 50                        |                               | 239                                  |
| 15                           | 34 26                 | 34 30                         | 30 12                        |                               | 231                                  |
| 16                           | 34 46                 | 34 54                         | 31 6                         |                               | 238                                  |
| 17                           | 34 50                 | 34 50                         | 31 82                        |                               | 240                                  |
| 18                           | 34 49                 | 34 49                         | 31 17                        |                               | 240                                  |
| 19                           | 35 46                 | 35 45                         | 30 20                        |                               | 220                                  |
| 20                           | 36 42                 | 36 45                         | 28 42                        | 9                             | 184                                  |
| 21                           | 37 6                  | 37 1                          | 27 46                        |                               | 167                                  |
| 22                           | 37 42                 | 37 46                         | 28 41                        |                               | 178                                  |
| 23                           | 38 9                  | 38 8                          | 29 33                        |                               | 185                                  |
| 24                           | 37 48                 | 37 46                         | 29 10                        |                               | 183                                  |
| 25                           | 37 29                 | 37 26                         | 29 3                         |                               | 184                                  |
| 26                           | 37 14                 | 37 11                         | 28 51                        |                               | 179                                  |
| 27                           | 37 6                  |                               | 29 12                        |                               | 186                                  |
| 28                           | 37 10                 |                               | 29 3                         |                               | 185                                  |
| 29                           | 37 48                 | 37 25                         | 28 15½                       |                               | 174                                  |
| 30                           | 37 47                 | 37 45                         | 27 21                        |                               | 156                                  |
| 31                           | 37 59                 |                               | 26 35                        | 10                            | 145                                  |

| 1775.<br>Day of the<br>month | Latitude<br>by<br>reckoning | Latitude<br>by<br>observation | W. Long.<br>from<br>San Blas | Variation<br>of the<br>Need'e | Dist. from<br>the coast of<br>America |
|------------------------------|-----------------------------|-------------------------------|------------------------------|-------------------------------|---------------------------------------|
| June 1                       | 38 21                       | 38 14                         | 26 12                        | 10                            | 128                                   |
| 2                            | 39 3                        |                               | 25 26                        | 12                            | 122                                   |
| 3                            | 39 46                       | 39 51                         | 24 38                        |                               | 107                                   |
| 4                            | 40 13                       |                               | 23 55                        | 13 30                         | 89                                    |
| 5                            | 41 11                       | 41 22                         | 22 58                        |                               | 70                                    |
| 6                            | 41 41                       | 41 37                         | 21 15                        |                               | 42                                    |
| 7                            | 41 49                       | 41 30                         | 20 19                        | 14                            | 33                                    |
| 8                            | 49 59                       | 41 14                         | 13 13                        | 14 30                         |                                       |
| 9                            | 41 25                       |                               | 19 4                         |                               |                                       |
| 10                           |                             |                               |                              |                               |                                       |
| 11                           |                             |                               |                              |                               |                                       |
| 12                           |                             |                               |                              |                               |                                       |
| 13                           |                             |                               |                              |                               |                                       |
| 14                           |                             |                               |                              |                               |                                       |
| 15                           |                             | 41 17                         |                              |                               |                                       |
| 16                           |                             |                               |                              |                               |                                       |
| 17                           |                             | 41 7                          |                              |                               |                                       |
| 18                           |                             | 41 7                          | 19 4                         |                               |                                       |
| 19                           |                             | 40 59                         | 19 21                        |                               |                                       |
| 20                           |                             | 40 53                         | 19 41                        | 14                            | 12                                    |
| 21                           | 40 59                       | 40 7                          | 20 56                        |                               | 31                                    |
| 22                           | 40 25                       | 40                            | 21 41                        |                               | 48                                    |
| 23                           | 40 2                        |                               | 23 1                         |                               | 67                                    |
| 24                           | 39 45                       | 39 23                         | 24 7                         |                               | 85                                    |
| 25                           | 39 24                       | 39 20                         | 25 40                        | 13                            | 106                                   |
| 26                           | 39 21                       | 39 21                         | 26 40                        |                               | 121                                   |
| 27                           | 39 22                       |                               | 26 30                        |                               | 113                                   |
| 28                           | 39 51                       |                               | 26 45                        |                               | 118                                   |
| 29                           | 33 43                       |                               | 26 25                        |                               | 107                                   |
| 30                           | 40 26                       | 40 16                         | 26                           |                               |                                       |

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| 1775.<br>Day of<br>the Month | Latitude<br>by<br>reckoning | Latitude<br>by<br>observation | W. Long.<br>from<br>San Blas | Variation<br>of the<br>Needle | Dist. from<br>the coast of<br>America |
|------------------------------|-----------------------------|-------------------------------|------------------------------|-------------------------------|---------------------------------------|
| July 1                       | 41 2                        | 41 1                          | 26 14                        | 13                            | 100                                   |
| 2                            | 47 17                       | 42 15                         | 26 49                        | 14                            | 90                                    |
| 3                            | 43 25                       | 43 24                         | 26 50                        |                               | 70                                    |
| 4                            | 44 21                       |                               | 26 30½                       |                               | 57                                    |
| 5                            | 44 27                       |                               | 26 10                        | 15                            | 47                                    |
| 6                            | 44 24                       |                               | 25 47                        |                               | 32                                    |
| 7                            | 46 10                       |                               | 26 6                         | 16                            | 26                                    |
| 8                            | 46 59                       | 47 3                          | 25 47                        |                               | 12                                    |
| 9                            | 47 44                       | 47 37                         | 24 20                        |                               |                                       |
| 10                           | 47 45                       | 47 35                         | 23 28½                       | 17                            |                                       |
| 11                           | 48 32                       | 48 26                         | 22 17                        |                               | 10                                    |
| 12                           | 48 1                        | 47 39                         | 21 53                        |                               | 6                                     |
| 13                           | 47 41                       | 47 28                         | 21 34                        |                               | 2                                     |
| 14                           | 47 24                       | 47 20                         | 21 19                        |                               |                                       |
| 15                           | 47 23                       | 47 7                          | 21 40                        | 17 30                         | 9                                     |
| 16                           | 47 20                       | 47 13                         | 22 3                         |                               | 17                                    |
| 17                           | 47 17                       | 47 9                          | 22 22                        | 17                            | 18                                    |
| 18                           | 47 3                        | 46 32                         | 23 32                        | 16*                           | 35                                    |
| 19                           | 46 34                       | 46 26                         | 24 28                        |                               | 50                                    |
| 20                           | 46 18                       | 46 17                         | 25 29                        |                               | 61                                    |
| 21                           | 46 6                        | 45 57                         | 27 5                         | 15                            | 82                                    |
| 22                           | 45 50                       | 45 44                         | 28 18                        |                               | 100                                   |
| 23                           | 45 44                       | 45 41                         | 29 24                        |                               | 115                                   |
| 24                           | 45 51                       | 45 52                         | 30 32                        |                               | 124                                   |
| 25                           | 46 4                        | 46 9                          | 29 59                        |                               | 120                                   |
| 26                           | 46 34                       | 46 32                         | 29 52                        |                               | 199                                   |
| 27                           | 47 6                        | 47 5                          | 29 19                        | 16*                           | 117                                   |
| 28                           | 47 45                       | 47 40                         | 29 41                        |                               | 103                                   |
| 29                           | 48 10                       | 47 50                         | 28 44                        |                               | 92                                    |
| 30                           | 47 21                       | 47 21                         | 29 32                        |                               | 102                                   |
| 31                           | 46 55                       |                               | 30 9                         |                               | 117                                   |

| 1775.<br>Day of<br>the Month | Latitude<br>by<br>reckoning | Latitude<br>by<br>observation | W. Long.<br>from<br>San Blas | Variation<br>of the<br>Needle | Dist. from<br>the coast of<br>America |
|------------------------------|-----------------------------|-------------------------------|------------------------------|-------------------------------|---------------------------------------|
| Aug. 1                       | 46 34                       |                               | 30 56                        | 16                            | 131                                   |
| 2                            | 46 45                       | 46 40                         | 31 52                        |                               | 141                                   |
| 3                            | 46 40                       | 46 35                         | 32 46                        |                               | 157                                   |
| 4                            | 46 29                       | 46 16                         | 33 39                        |                               | 157                                   |
| 5                            | 46 47                       | 46 47                         | 34 5                         |                               | 171                                   |
| 6                            | 47 49                       | 47 50                         | 34 6                         |                               | 164                                   |
| 7                            | 48 26                       | 48 24                         | 34 12                        |                               | 159                                   |
| 8                            | 48 39                       |                               | 34 7                         | 17*                           | 156                                   |
| 9                            | 49 11                       | 49 9                          | 34 7                         |                               | 154                                   |
| 10                           | 50 18                       |                               | 34 54                        | 18                            | 160                                   |
| 11                           | 51 24                       | 51 34                         | 34 58                        |                               | 159                                   |
| 12                           | 52 18                       | 52 27                         | 35                           | 19                            | 158                                   |
| 13                           | 53 39                       | 53 54                         | 35 26                        |                               | 161                                   |
| 14                           | 54 58                       | 55 4                          | 36 7                         |                               | 166                                   |
| 15                           | 55 53                       | 56 8                          | 35 47                        |                               | 154                                   |
| 16                           | 56 43                       | 56 44                         | 35 15                        |                               | 4                                     |
| 17                           | 56 54                       | 57 2                          | 35 27                        |                               | $\frac{1}{2}$                         |
| 18                           | 57 21                       |                               | 35 27                        |                               |                                       |
| 19                           |                             |                               |                              |                               |                                       |
| 20                           |                             |                               |                              |                               |                                       |
| 21                           |                             |                               |                              |                               | $\frac{1}{2}$                         |
| 22                           | 57 55                       | 57 57                         | 38 2                         | 20                            |                                       |
| 23                           | 57 10                       | 57 8                          | 35 50                        | 22*                           | 2                                     |
| 24                           | 56 1                        |                               | 33 46                        | 24*                           | 1                                     |
| 25                           | 55 17                       | 55 17                         | 33 24                        |                               |                                       |
| 26                           | 56 6                        | 55 6                          | 33 22                        | 24                            |                                       |
| 27                           |                             |                               |                              |                               |                                       |
| 28                           | 55 36                       |                               | 34 39                        | 23*                           | 2                                     |
| 29                           | 55 55                       | 55 55                         | 34 32                        |                               | $\frac{1}{2}$                         |
| 30                           | 56 21                       |                               | 35                           |                               | $\frac{1}{2}$                         |
| 31                           | 56 41                       | 56 47                         | 35 32                        |                               | $\frac{1}{2}$                         |

| 1775.<br>Day of<br>the Month | Latitude<br>by<br>reckoning | Latitude<br>by<br>observation | W. Long.<br>from<br>San Blas | Variation<br>of the<br>Needle | Dist. from<br>the coast of<br>America |
|------------------------------|-----------------------------|-------------------------------|------------------------------|-------------------------------|---------------------------------------|
| Sept. 1                      | 56 31                       |                               |                              |                               |                                       |
| 2                            | 56 5                        |                               | 16 10                        |                               |                                       |
| 3                            | 55 45                       | 56 3                          | 36 22                        | 23                            | 10                                    |
| 4                            | 55 28                       | 55 47                         | 36 39                        | 23 30                         | 17                                    |
| 5                            | 55 8                        |                               | 36 33                        | 23                            | 21                                    |
| 6                            | 54 40                       | 55 7                          | 37 5                         |                               | 22                                    |
| 7                            | 54 53                       | 54 42                         | 36 27                        |                               | 26                                    |
| 8                            | 55 4                        |                               | 36 56                        | 22                            | 20                                    |
| 9                            | 54 39                       |                               | 36 56                        | 23                            | 26                                    |
| 10                           | 54 4                        | 54 32                         | 35 22                        |                               | 26                                    |
| 11                           | 53 54                       | 54 6                          | 34 6                         | 21                            | 7                                     |
| 12                           | 52 58                       | 53 52                         | 32 19                        |                               | 6                                     |
| 13                           | 52 11                       |                               | 31 5                         | 20                            | 8                                     |
| 14                           | 51 14                       | 52 9                          | 30                           |                               | 8                                     |
| 15                           | 50 4                        | 51 16                         | 29 35                        |                               | 9                                     |
| 16                           | 49 23                       | 50 12                         | 27 2                         |                               | 9                                     |
| 17                           | 48 51                       | 49 21                         | 25 38                        |                               | 9                                     |
| 18                           | 48 37                       | 48 53                         | 24 35                        |                               | 9                                     |
| 19                           | 47 50                       | 48 33                         | 23 40                        | 19                            | 7                                     |
| 20                           | 47 11                       | 47 49                         | 23 10                        |                               | 6                                     |
| 21                           | 46 21                       | 47 12                         | 22 33                        |                               | $\frac{1}{2}$                         |
| 22                           | 46 20                       |                               | 21 58                        |                               | $\frac{1}{2}$                         |
| 23                           | 45 38                       |                               | 22 42                        |                               | 11                                    |
| 24                           | 44 47                       |                               | 22 35                        |                               | 10                                    |
| 25                           | 44 17                       | 44 47                         | 21 12                        |                               | $\frac{1}{2}$                         |
| 26                           | 43 15                       | 44 19                         | 21 2                         |                               | $\frac{1}{2}$                         |
| 27                           | 42 37                       | 43 16                         | 21 20                        | 18                            | $\frac{1}{2}$                         |
| 28                           | 42 37                       |                               | 21 41                        | 17                            | 10                                    |
| 29                           | 41 1                        |                               | 21 41                        |                               | 12                                    |
| 30                           | 39 38                       | 40 54                         | 21 41                        |                               | 10                                    |
|                              |                             | 39 42                         | 21 11                        | 16                            | $\frac{1}{2}$                         |



Dist. from  
the coast of  
America

10  
17  
21  
22  
26  
30  
6  
6  
7  
6  
8

[ 533 ]

| 1775.<br>Day of<br>the Month | Latitude<br>by<br>reckoning | Latitude<br>by<br>observation | W. Long.<br>from<br>San Blas | Variation<br>of the<br>Needle | Dist. from<br>the coast of<br>America |
|------------------------------|-----------------------------|-------------------------------|------------------------------|-------------------------------|---------------------------------------|
| Oct. 1                       | 39 17                       | 39 15                         | 20 26                        | 16                            | $\frac{1}{2}$                         |
| 2                            | 38 49                       | 38 49                         | 19 5                         | 16                            | $\frac{1}{2}$                         |
| 3                            | 38 16                       | 38 16                         | 19 2                         | 16                            |                                       |
| 4                            | 38 16                       | 38 16                         | 19 22                        | 16                            |                                       |
| 5                            | 37 54                       | 37 53                         | 10 24                        | 15                            | 3                                     |
| 6                            | 37 45                       | 37 43                         | 19 4                         | 15                            | 1                                     |
| 7                            | 36 43                       | 36 42                         | 18 47                        | 14                            |                                       |
| 8                            | 36 46                       |                               | 17 17                        | 14                            |                                       |

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| 1775.<br>Day of<br>the Month | Latitude<br>by<br>reckoning | Latitude<br>by<br>observation | W. Long.<br>from<br>San Blas | Variation<br>of the<br>Needle | Dist. from<br>the coast of<br>America |
|------------------------------|-----------------------------|-------------------------------|------------------------------|-------------------------------|---------------------------------------|
| Nov. 2                       | 36 44                       | 36 42                         | 17 5                         | 14                            | 7                                     |
| 3                            | 36 28                       |                               | 17 27                        | 13                            | 8                                     |
| 4                            | 36 6                        | 36 11                         | 17 42                        | 12                            | 8                                     |
| 5                            | 34 41                       | 34 36                         | 17 25                        | 11                            | 23                                    |
| 6                            | 32 50                       | 32 48                         | 16 58                        | 10                            | 45                                    |
| 7                            | 30 56                       | 30 57                         | 16 2                         | 9                             | 48                                    |
| 8                            | 29 32                       |                               | 15 18                        | 8                             | 46                                    |
| 9                            | 28 52                       |                               | 14 45                        | 7                             | 45                                    |
| 10                           | 28 21                       | 27 52                         | 14 13                        | 7                             | 42                                    |
| 11                           | 27 16                       | 27 8                          | 13 26                        | 7                             | 35                                    |
| 12                           | 26 16                       | 26 12                         | 12 13                        | 7                             | 24                                    |
| 13                           | 25 18                       | 25 16                         | 10 46                        | 6                             | 38                                    |
| 14                           | 24 53                       | 24 37                         | 8 58                         | 6                             | 6                                     |
| 15                           | 24 15                       | 24 1                          | 6 56                         | 6                             | 10                                    |
| 16                           | 23 2                        | 23                            | 5 25                         | 5                             | 1½                                    |
| 17                           | 22 20                       | 22 22                         | 4 3                          | 5                             | 40                                    |
| 18                           | 21 54                       | 21 53                         | 2 38                         |                               | 10                                    |
| 19                           | 21 45                       | 21 44                         | 0 46                         | 5                             | 3                                     |
| 20                           | 21 36                       | 21 34                         | 0 2                          | 5                             |                                       |

